

THE ECONOMIC PROBLEM OF INDIA

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FOREWORD BY
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NEW BOOK CO.
HORNBY ROAD, BOMBAY
1942

First Published January 1942

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New Book Co., 188-90 Hornby Road, Bombay.

TO
MY PARENTS

FOREWORD

WE are living at a stage of human culture when the standardisation of mass production with the help of machinery has induced a similar standardisation in our beliefs and convictions. We have not only common conformity in dress and ways of living, over-riding even the distinctions between the sexes, but conformity in common judgments and common valuations. This conformity to standardised patterns of thinking has not only been actively fostered by the instruments of propaganda used by totalitarian governments in normal times; it has been a valuable ally of vested economic and political interests which have dwelt in glowing terms upon the process of education as an effective substitute for force and revolution. In a world such as confronts us today, the only hope for a better order seems to lie in the increasing recognition of the value of creative thinking, the upward urge of thought diverging often from the standardised patterns, above all in the field of the social sciences.

We in India seem to suffer from the same malady of standardised thinking in our socio-economic problems. We have a host of writers in the field talking to us in glowing terms about the potential resources of this country and the need for bringing them into the field of a competitive world order resting on comparative costs and price valuations, so as to make the country prosperous and wealthy. We have heard from all sides anticipations of the coming millennium when India will be a great nation through the intensification of its agricultural production and of the process of industrialisation.

The book before us on "The Economic Problem of India" strikes a somewhat discordant note in the midst of the chorus of voices to which our ears have been accustomed. The author, Mr T. N. Ramaswamy, is a product of one of our own Universities—; he has had the benefit of cultural

contacts with the West. He has given years of thought to the preparation of this work. There is a life of dedicated service to which one becomes alive as he goes through the chapters. The line of thought that he has followed is not in conformity with the standardised platitudes to which two or three generations of writers on Indian economic problems have familiarised us. The disinterested search for truth demands an atmosphere of freedom where the wind can blow where it listeth. This work demands attention and consideration for its departure from the conventional, even apart from the intrinsic value of its contents.

"India had a respectable place in the economic order of the old world. To-day she is suffering from a maladjustment of her resources to her needs". "The future of India in the economic hegemony of the world can never be commanding." We are told there are few prospects of the expansion of the area under cultivation. In mineral resources no one can be over-sanguine about the future. If by "economic progress" we mean the adjustment of the rate of regional production to the rate of international consumption, India cannot have economic progress. If by "economic progress" we mean the co-ordinated administration of national resources, future economic evolution can only give India a respectable, but not a commanding, place in the economic civilisation of the world.

As a result of our participation in the present day world wide system of industry and trade, with our insufficient productive apparatus, we have precipitated a major crisis in the economic life of our country. We cannot fit India to the exigencies of the competitive system without dissolving the existing social order and multiplying the causes of social friction. We cannot damage the social structure of India based upon a spirit of corporate service and sacrifice without precipitating a crisis.

If this crisis is to be avoided we must aim at the restoration and preservation of the stability of the little farmer and the integrity of the small artisan and craftsman. We have today an uneconomic wage level, an uneconomic localisation, uneconomic competition among the

units of each industry, uneconomic marketing and uneconomic technical processes of production. Our industrial evolution has been planless. What we need is state regulation of the economic structure in the general interest of the community, limitation of the profit incentive, regionalisation of industrial units by securing localisation near the raw material areas, and their co-ordination in a spiral system of economic corporations under a system of barter adjustments. This is the theme of the work.

There is a vision behind this work—the nations that have no vision shall perish. No policy of unthinking imitation nor any tinkering with details can avail. The lines along which a solution of our problems is offered may not lead us straight to the goal. The process of human evolution is a process of trial and experiment through which we grope our way over the stepping stones of our failures and errors: but it is better to venture forth on the strength of a large faith than to grovel in the dust along trodden paths which wind and wind in a planless world.

P. A. WADIA.

PREFACE

I make no apology for placing this small volume before students of Indian economic affairs. The time has come when we should attempt 'self-analysis' to discover whether we have proceeded along the right lines of economic evolution and whether we can straighten ourselves out of the errors of economic adjustment which have been consciously or unconsciously perpetrated in bringing India into the orbit of technical progress. Unfortunately for India, throughout her struggle for economic recognition she had to grapple with extremists—transport faddists, agricultural revolutionists and industrial enthusiasts—but the moderates attempting to co-ordinate all the branches of technical development in order to give the country an environment in which a relatively frictionless economic adjustment can be achieved, have always been rare. To them this book is respectfully addressed.

The connoisseur will notice that the book is rather sketchy. Considerations of exceeding the bounds of a reasonable 'volume' have delimited my treatment of some of the specific problems of economic evolution; the temptation to break through the margin was indeed great and only those who have been in similar predicament can appreciate my difficulty.

Given suitable opportunity, I should like to study some of the specific problems indicated in this volume in greater detail. If this book succeeds in impressing upon those who dispense India's destiny the urgency of economically co-ordinating the technical progress of the country, I shall consider my labour amply rewarded.

In conclusion, I would like to express my gratitude to the Publishers and the Press for the highly commendable manner in which they have produced the book in spite of the extraordinary *conjunctur* in which it had to be put through.

T. N. RAMASWAMY.

Bombay.

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CORRECTION SLIP.

Page	Para	Line	Substitute	For
49	1	31	"basic"	"the basic"
51	2	5	"4s. 8d."	"4 sh."
51	3	5	"5s. 4d."	"5s. 6d."
68	3	3	"year in, year out"	"year in the year out"
71	2	7	"hybridisation"	"hybridisation"
71	2	10	"successes....in regard"	"success....with regard"
88	1	11	"can we"	"we can"
96	1	9	"..stumbling"	"standing"
109	2	4	"surveys"	"survey"
131	Foot-note		"3 Report, p.41"	"3.Report, p.368"
132	" "		"1.Report, p.368"	"1.Report, p.370"
171	3	5 and 6	These lines are transposed.	
238	2		Insert "factories in India, an increase of over 350 per cent in three" between 13th and 14th lines.	
271	4	1	"The answers"	"The answer"

CHAPTER I.

THE PROBLEM OF NATURAL CONSERVATION

"ALTHOUGH the proximate causes of the chief events in history", writes the doyen of British economists, "are to be found in the actions of individuals, yet most of the conditions which have made these events possible are traceable to the influence of inherited institutions and race qualities and of physical nature... But none of these things are of any permanent avail if the climate is unfavourable to vigour: the gifts of nature, her land, her waters, and her skies determine the character of the race's work, and thus give a tone to social and political institutions."¹

If natural resources alone could build up an economic system, India should possess to-day a respectable economic civilisation. In the variety of natural resources, she is second to none of the Great Powers who have to-day dominated the economic order of the world. Nor can climatic conditions be said to be uncongenial to the evolution of a sound economic system. Yet, her position in the economic hegemony of the world to-day is neither commanding nor even enviable.

Why is it so? Is it because the people are unwilling or unable to conserve the natural resources of the country? Or is there anywhere in India, what Horace Hayman Wilson called, "the arm of political injustice" putting a brake on every economic adjustment attempted in the country? Or should the blame be shifted to the social and cultural 'institutions' of the country which have stood in the way of adjustment between the Indian economic system and the twentieth century scale of progress?

These are some of the questions which focus themselves before any economic enquirer in India. The answer to these questions is hopelessly entangled in, what Professor Robbins would have called, a 'cluster of errors' of judgment peculiar to a country which has been long subjected to a ceaseless wave of conquest and colonisation. Before we attempt to untangle the *mystery* of Indian economic evolution, let us pause to make a survey of the natural re-

¹Alfred Marshall: Principles of Economics, Appendix A. p.723

sources of the country which once gave India a respectable place in the empires of the world, and which to-day are unable to give the country even adequate subsistence.

India, with an area of 1,808,679 square miles, can be divided into four 'zones' which differ from one another both in the variety of natural resources and in the customs and traditions of the people so minutely that this country has come to be regarded more as a subcontinent than as a land of homogeneous climate or people.

The first is the Himalayan Zone which includes not only the Himalayan regions but also the enchanting Kashmir Valley and the States of Nepal and Bhutan and extends to the Tibetan frontiers.

The second is the Indo-Gangetic Zone lying between the Himalayan Zone and a line extending from Karachi in Sindh to Calcutta in Bengal touching Delhi in the Punjab—perhaps the most fertile region of India and consequently, the seat of Ancient Aryan civilisation.

The third zone is that part of India which stretches southwards of the Indo-Gangetic plain comprising the Western and the Eastern Ghats and their network of rivers.

The last zone is Burma in the Malay Peninsula with its deep forests and rich agrarian and mineral resources.

The Himalayan and the Indo-Gangetic zones have rivers which are perennial like the Ganges, the Indus and the Brahmaputra. They not only irrigate to this day the vast Indo-Gangetic plain, but also served in an earlier epoch of India's economic evolution as the main arteries of commerce. The rivers of the Peninsula are fitful: many of them develop into muddy mississippis during the rainy season and dwindle into stagnant pools in the hot months. With such river system, it is hardly possible to ensure a steady flow of water either for irrigational purposes or for human consumption except by constructing huge reservoirs to regulate the flow of water during both rainy and hot seasons. We thus come across some gigantic barrage schemes in the Peninsula: the Mettur Project, the Periyur Dam, and the Krishnarajasagar Reservoir in Mysore. Similarly in the north, we have the Sukkur Barrage which has created a verdent garden out of the sun-scorched Sindh.

In the final analysis, the river-system in this country is unsuited to water-transport of the modern or any other efficient type. Before they can be rendered navigable, vast

sums of money will have to be spent in regulating the depths of the rivers through wet and dry seasons. To hope that the Ganges or the Indus will become the Danube of a future economic system is like crying for the moon.

In spite of its imposing river-system, the major portion of India remains unconnected by either rivers or canals. Consequently Indian economics, like the Indian Budget, has come to be considered a *gamble in the monsoon*. "Except in the submontane tracts of the Himalayas, East Bengal, Assam, Lower Burma and the narrow strip between the Western Ghats and the Arabian sea," writes the Royal Commission on Agriculture, "the absolute security of the harvest throughout India depends on the existence of some form of irrigation."¹ This was recognised by every dynasty of rulers in India. That is how we have come to possess in India innumerable tanks, particularly in the Madras Presidency and vast irrigational projects like the Grand Anicut across the Cauvery in the south and the Jumna canals in the north: the West Jumna Canal being constructed by Feroz Shah in the 14th century and the East Jumna Canal, by Shah Jehan in the 17th century and also the Bari Doab Canal which brings water to the sunbaked towns of Lahore and Amritsar.

Even to-day, the position of India regarding either irrigation or transport can hardly be said to be satisfactory. There are vast tracts which depend, for the success of agricultural operations, on the fleeting clouds of June. In 1933-34, only 12.8 per cent of the total area cultivated was irrigated. As for transport, we have, on unimpeachable authority, that "most of the 500,000 villages have not yet been touched by metalled road or railway."² In such circumstances, the development of a vast network of canals to irrigate land and also to serve as a means of cheap transport, sounds highly attractive. But is the sponsoring of such a scheme possible? Is it possible to link up the remotest village of India by a canal system? What are the financial implications of such a vast scheme of water-transport? These are questions the consideration of which must be deferred to a later portion of this thesis. More than a century ago Sir Charles Trevelyan had said, "Irri-

¹Report of the Royal Commission, p.325.

²Report of the Royal Commission on Agriculture p.5.

gation is everything in India," a statement whose importance has been demonstrated in this country not only through years of prosperity, but also through those years when the June sun blazes down on the fields and leaves behind a trail of despair and famine.

We have travelled far from Montesquieu who magnified the influence of the 'empire of climate' on the evolution of human institutions—he even went to the extent of asserting that a cold climate produced a 'sense of superiority' in men.¹ "If it is asked what are the causes of differences of national efficiency," says Prof. Cannan, "a very long story is opened—the history of the world, and by no means only economic history, nor even that and political history: religious and every other sort of history has to be brought in. We cannot be sure that what we look on as permanent is really going to last. It is not certain that the peoples now most efficient will always be so; the others may improve faster and pass them in the race."² In spite of the fact that the place of climate is only of secondary importance in the evolution of human institutions in any zone, there can be no doubt that it is one of the factors which go to build up a zonal civilisation—both mental and material. How is India placed in point of climate?

In the first place, India has no homogeneous climate. As with all the other regions of the earth's surface, her geographical position and her physical contours settle her climatic conditions. The climate of India varies from incessant rains and cyclonic storms in one part of the year to dry weather during the remaining months of the year. Thus the average annual maximum temperature varies from 94.6 degrees at Ahmedabad in Gujerat and 95.7 degrees at Jacobabad in the Indus Valley, to 60.7 degrees at Simla and 59.3 degrees at Darjeeling in the Himalayan zone. The average minimum temperature varies from 62 degrees at Lahore in the Punjab and 63.7 degrees at Meerut, to 47.7 degrees at Darjeeling and 44.2 degrees at Srinagar in the Kashmere Valley. The hottest month in India is May, when Jacobabad beats the record at 112 degrees, reaching 114 degrees in June, and being keenly followed by Nagpur with 108 degrees and Akola with a similar

¹See Montesquieu; Bk. xiv. chii.

²Cannan: The Review of Economic Theory, p.396.

temperature. The coldest month, of course, is January with 27.1 degrees at Srinagar and 35.1 at Darjeeling, preceded by 27.6 and 36.7 respectively, in December. During the same period, the hottest part of India—Bellary—has a temperature of 60.9 and is closely followed by Nagpur with 54.2 and by Akola at 52.3 degrees. No wonder if, during the hot months, all car-tracks lead to Srinagar and Darjeeling—while the peasant continues to bask in the heat of the plains.

Obviously, the most important single phenomenon in the climatic system of India which is of paramount significance to the agricultural population of the country is the Monsoon. In fact, in India, we have only two seasons: the summer monsoon and the winter monsoon. During the winter monsoon, India enjoys fine weather with clear, dry skies, low humidity and a bracing breeze. The summer rains draw to a close about the middle of September in the North-Western Provinces and in the Punjab and cooling westerly and northerly winds set over these parts, spreading slowly east-ward and south-ward—embracing the whole of the continent by the middle of October, except the southern half of the peninsula—which they reach only by the end of the year. The climatic conditions of the country become most bracing at the time of the year—the rains having receded to the Equatorial Belt. There are, however, two exceptions to this zone of temperate weather: the Madras Coast, which is usually caught during this part of the year, in the clutches of the north-east winds of the Bay of Bengal and the receding summer monsoon and experiences “the wettest and most disturbed weather of the whole year”¹ and the north-west of India. As a result, while during the monsoon months, June to September, Madras records a total rainfall of 15.46 inches, in the months from October to December, it records a total rainfall of 31.78 inches. The north-west region of India experiences during the months from January to March a succession of shallow storms from the west and also an appreciable rainfall during some years. In Peshawar, for instance, while the rainfall for the quarter—December to March—is 4.6 inches, it is favoured more by the winter monsoon. These

¹Indian Year Book, 1936-37, p.287.

rains are of great importance to India since they determine the grain and wheat crops of north India.

The months—from March to May—form a period when the thermometer soars up and hot breezes blow in the peninsula. In March, the Deccan records a temperature of 100 degrees; in April, the temperature will have shifted to the south of the Central Provinces and Gujerat; May sends up the thermometer in the interior parts of the country, while in June, the Indus Valley burns red-hot at a temperature exceeding 110 degrees. The thermometer climbs up to 120 and creeps further up, during this period in Sindh, Rajputana, western and southern Punjab and parts of the United Provinces. Jacobabad, in the Indus Valley, holds the temperature record for India at 127 degrees in 1919. During this period, not only do the north-east winds disappear, but northern India will get strong hot winds from the river-valleys. There are also violent local storms over the coast towns, which are swept by land and sea winds. This period is one of dust storms in northern India and of thunder and hail-storms in Bengal.

The exasperating heat of the May month which drives most men crazy, prepares the country to receive the south-west monsoon which takes its birth in the Arabian Sea and in the Indian Ocean. India is soon caught in the current of the south-west monsoon and the south-east trades.

The current which carries the monsoon clouds enters India through two routes: the Arabian Sea and the Bay of Bengal. The Arabian Sea current carries prosperity not only to the west coast of India but also to the major portion of the Peninsula, Rajputana, Central India and the northern reaches of Bombay. The Bay of Bengal current envelops Burma, east Bengal and Assam; while a part of it goes up to the Himalayan zone unobstructed, turns round and disgorge its rains over the Indo-Gangetic plain.

The greater part of the Arabian Sea current deposits its rain on the coastline skirted by the high Western Ghats, and in its journey through Deccan, bestows fitful rain on some parts of the Peninsula; while the northern portion of the current passes over Gujerat, Kathiawar and the Sindh coasts and drenches the Aravalli region, western Rajputana continues to bake in the June sun. The current

carries fitful showers and downpours to eastern Rajputana, eastern Punjab and the Himalayan regions, where there is a confluence of the two currents.

The Bay of Bengal current blowing south-west-ward covers the Tennaserim hills and the valley of the Irrawady where heavy rains are experienced. The current which takes a northward course brings prosperity to east Bengal regions and the Assam hills and in its westerly career bestows prosperity on the Indo-Gangetic plain and the valley of Kashmir.

But none of the currents mentioned above reach the region which comprises Agra, Allahabad and parts of Orissa and the Punjab. These parts are particularly favoured by the Bay of Bengal current.

The monsoon gives India a total rainfall of 100 inches during the quarter beginning with June in the West Coast, diminishing to 5 inches in south Madras; it is again over 100 inches in the Tennaserim region and in the south Burma coast and comes down to 20 inches in Upper Burma. And while it gives 100 inches to the Assam valley, the Indus Valley gets only 5 inches of rainfall. No wonder the Indus Valley burns red hot!

This normal course of the monsoon is, by no means normal. India often experiences abnormal seasons which upset agricultural operations and devastate vast regions where hunger and famine threaten men and cattle.

The abnormal seasons occur in four ways: (i) the rains may fail to set in in June—a very normal occurrence in north Bombay and the north-west regions of India, (ii) heavy rains in July or August which delay agricultural operations and ruin anticipated crops, (iii) rains may terminate sooner—which means ruination to all crops sown in anticipation of a normal monsoon, and (iv) abnormal distribution of rainfall which occasions draught and insufficient rainfall in some parts of India, and floods in others: a phenomenon which is not so abnormal in any year in the country.

Normally about the middle of September, the skies clear up and bracing breezes blow in the north-west of India slowly extending so that as the year draws out to a close, the whole of the country experiences a mild and bracing climate. This is the season of the great Hindu festivals—Dasara in South and Divali in North India. For, a normal

monsoon fulfilling the anticipations of the peoples means prosperity; tanks are full; both men and cattle are cheerful with the hope of a bountiful harvest and a spirit of thankfulness to the Almighty fills the air. A dry monsoon leaves behind three hundred million sallow faces and five hundred thousand rural zones of despair and threatened famine.

On the monsoon, India builds her prosperity and, because of its failure, suffers her privations. The rolling clouds of the June skies impress upon the Indian farmers the majesty of God and the helplessness of man. They think: What if the sun scorched the June skies? Who can help if the life-giving clouds marshalled by God Indra did not come over the land at all? The prayer to Indra is as old as the Aryan civilisation in this land—a prayer which rises to the Indian skies when the horizon holds no prosperity to the country:

Dyava cid asmai Prithivi namete;
Susmac cid asya Parvata bhayante;
Yah somapa nicito vajrabahur;
Yo vajrahastah: sa janasa Indrah.

(Heaven and earth prostrate themselves before Him; His valour even mountains fear; He is renowned as the Drinker of Soma, the Bearer of Lightning; He, O men, is Indra!)

In this setting, with the livelihood and prosperity of three hundred and odd million people of this country depending upon the bounty of the monsoon which no man can control, is there any wonder if the Indian peasant becomes fatalistic and humble?

"Every acre", wrote Marshall, "has given to it by nature an annual income of heat and light, of air and moisture; and over these man has but little control."¹ But man is not so helpless with regard to the fertility of land. By irrigation, by reclamation and by regulation, he has been able to cultivate even swamps and marshes as Italy has been doing under her plan of Integral Land Reclamation inspired by Mussolini, and as we have done, through the ages, by irrigation and regulation of water-supply in dry parts through 'tanks' and bunds. The progress of science and its alliance with agricultural technology has definitely proved, what was unproved in Ricardo's days, that man can profoundly change and regulate the "original and in-

¹Principles: iv. 11. 3. p.147.

destructible" powers of the soil and shatter the 'boldest paralogism ever foisted upon the world or palmed upon willing credulity" (Hazlitt)—the Malthusian theory of progression of subsistence.

For all outward purposes, India presents a geologically uniform surface. We do not come across rapid changes of geological formations in this country, as in some countries of Europe. Nor, as we have seen above, is there sharp variation in the rainfall, so that so far as rainfall is concerned, no one can discover striking difference between towns on the Gangetic plain and the highlands of the Himalayan ranges and of the Western Ghats.

Naturally the geological formation of the country and the structure of its climate leave one with an impression of uniformity in the soils of the country. Nothing could be more misleading. Intensive soil research, as in Madras and Bombay, has revealed a wealth of information which leads us to a different conclusion.

There are four types of soils found in this country :

- (a) The red soils derived from the archaen system.
- (b) The black cotton soils or 'regur' soils associated with the middle period.
- (c) The more recent alluvium soils.
- (d) The laterite soils which are found in the Peninsula and extend through east Bengal into Assam and Burma.

The "red soils" cover the whole of the peninsular zone : the Madras Presidency, Mysore, south-east Bombay, east Hyderabad, the Central Provinces, Orissa, Chota Nagpur and southern Bengal. They also occur in Bundelkhand, north Baroda, Aravalli zone and Rajputana. They are also found in the Himalayan zone and in Assam. These soils differ in consistency, depth and fertility : they vary from the poor, gravelly soils of the uplands to the rich, fertile soils of the plains. In some places, irrigation is possible by wells and tanks or canals. Red soils are deficient in nitrogen, phosphoric acid and humus, though they have enough of potash and lime.

The black cotton soils are found in the whole of the Deccan and large areas of Bellary, Kurnool, Cuddapah, Coimbatore and Tinnevely districts of the Madras Presidency. The area of these soils covers 200,000 square miles

embracing the major portions of Bombay, the Central Provinces and Hyderabad. The quality of these soils varies from the poor soils of the slopes and uplands to the rich alluvial soils of the Surat and Broach regions of Bombay. The soils of the Madras zone never attain the depth of the trap areas of the Deccan.¹

Whether the cotton soils yield to irrigation is a matter of controversy. Attempts were made to cultivate rice and other crops at the Hagari experimental station near Bellary, but the experiments were in vain, but Bombay has been more fortunate in this respect. In these soils, while phosphoric acid and nitrogen are deficient, potash and lime are found in adequate measure.

The "alluvial soils" are the most important source of agrarian prosperity. A belt of this soil girds the coast of the Peninsula; and is also to be found where the Godavari, the Krishna and the Cauvery drain themselves into the Bay of Bengal. They consist of heavy, rich loams producing excellent crops in rice and sugar-cane.

Large areas of alluvial soils are to be found in Burma, but the Indo-Gangetic valley is richly endowed with them. Sindh, north Rajputana, the Punjab, the United Provinces, Bihar, Bengal and Assam are included in the alluvial zone. These soils are derived mainly from the Himalayan regions.

The "Laterite Soils" are derived from a rock peculiar to India known as laterite. This is found on the summits of the hills and the plateau of Central India and in the Western and Eastern Ghats, as also in Burma and Assam. They contain alluvial soils and are valuable in the valleys and in the plains as they produce good crops. Researches into the problem of harnessing these soils to agricultural purposes are being made by the Agricultural Departments of Bengal, Assam and Burma and "the progress is", as usual, "slow".

In general, intensive researches into the chemical properties of the soils in the country have revealed that the Indian soils are deficient in plant nurture. The deficiency was keenly felt in nitrogen in almost all the provinces. The researches conducted at Pusa and Cawnpore revealed the extensive damage done by heavy rainfall in draining away nitrogen from the land.

¹Royal Commission on Agriculture, Report p.72.

This does not imply that the agricultural or cropping values of the Indian soils are progressively deteriorating. They are stable at a low level of fertility, thanks to the "indestructible powers" of Nature.

The greatest single factor affecting the fertility of the soil in this country is "soil erosion"—that is, draining away of the soil by floods. This is specially noticeable in the submontane regions of north India, the United Provinces and west Bengal—where areas on the banks of the Jumna and the Chambal have been devastated by a network of ravines. The monsoon plays havoc in the slopes and in the uplands of the Deccan, south Bombay and Chota Nagpur. Afforestation of the ravines has been tried for fighting soil erosion in the United Provinces. Afforestation is of double benefit: it provides not only a partial check to soil erosion, but also secures fodder* for the cattle in the neighbouring rural regions. Bombay has experimented with terracing of land and the construction of earthen and stone embankments (*tals*) to fight soil erosion. West Bengal and the Punjab have simply 'watched' the progress of soil erosion. In these circumstances, what are the crops grown in this country?

Portions of northern India, especially the Central Provinces and the Bombay Presidency, have two crop seasons: the rainy and the cold, yielding the *kharif* or the autumn crop and the *rabi* or the spring crop. In the Peninsula proper, there are no two such crops in the year since the rainy season commences in October and runs well into January. The principal autumn crops in this country are rice, jute, groundnuts and ragi; and the principal spring crops are wheat, gram, linseed, rape, mustard, barley, juar, rice, sesamum and gram—the last four being reaped in the Peninsula as spring crops. Sugarcane is hardly gathered more than once a year since it has to be on the ground for ten months.

The most glaring deficiency of the soils in this country is, as noted above, nitrogen which happens to be a principal plant food. Nature can hardly fight the continuous exhaustion and draining of nitrogen from the soils in India unaided by man.

How can nitrogen be restored to the Indian soils so that agricultural operations may become more fruitful?

Farmyard manure is one of the most essential factors of soil-rejuvenation; but lack of alternate fuel-supply drives the agriculturist to convert it into cowdung and burn it. And lucrative international markets drain away oil seeds, hides and bones which form a potential source of nitrogen for the soil. "This loss", says the Royal Commission on Agriculture, "is in no way compensated by the importation of nitrogenous fertilisers."¹ What is the remedy for this state of affairs? An embargo on export? Such a method would only unnecessarily hamper the course of free trade—which is essential for the country as long as she decides to stay within the ambit of an exchange economy. Nor is the Indian agriculturist in a position to buy chemical fertilisers and to make a profit in a competitive market for primary products with his rigid cost-structure. Nor is intensive exploitation of the soil possible as long as the size of the average farm is conditioned by considerations of subdivision and fragmentation of land-ownership. In fact, this process has gone to such ridiculous extremes that "in Ratnagiri, for instance, the size of individual plots is sometimes as small as 1/160th. of an acre, or 30½ square yards; in the Punjab, fields have been found over a mile long and but a few yards wide, while areas have been brought to notice where fragmentation has been carried so far as effectively to prevent all attempts at cultivation."² Evidently the holdings are such that not even an agricultural expert could farm them at a profit. In these circumstances, it is but natural that out of a total area of 259 million acres cultivated in this country in 1934-35, food grains alone occupied 213 million acres. All efforts at improving the fertility of the soil, therefore, can only be of an utopian nature as long as the economic framework in which rural production has to seek adjustment remains essentially competitive. Till an entire reconstruction of our economic system is seriously attempted, only agricultural departments of the provincial governments can indulge in the luxury of chemical fertilisers—in an atmosphere sterilised to the influence of forces of competent production and competitive exchange. For instance, Madras and the Central Provinces conducted experiments in syn-

¹Report, p.80.

²Royal Commission on Agriculture, Report, p.134.

thetic farmyard manure and Bengal followed suit. Abortive experiments were also made in Burma and by Dr. Fowler who researched in the same direction at Cawnpore. At Nasik and other parts of Bombay, attempts were made to convert night soil into poudrette and the system of converting night soil into soil fertiliser by the activated sludge process was attempted at Tatanagar. In Madras, the Punjab and the Central Provinces, attempts were also made to encourage green manure crop like *dhanicha* and groundnuts. Sulphate of ammonia is being produced at Jamshedpur as a bye-product and also on the coal fields of Bengal, Bihar and Orissa; but the general soil position of India in the rural regions remains unchanged. "In these circumstances," pronounces the Royal Commission on Agriculture, "it is fortunate that the recuperative processes of the soil are more pronounced in tropical and sub-tropical than in temperate regions."¹ Faced with such a situation, the Indian agriculturist has learned to think, in the language of Edmund Burke, that he censures God who quarrels with the imperfections of the "economic" order!

The most precious of all natural resources to a country are the forests. As Professor Coatman puts it, "They hold together the fertile surface soil; they store water and dole it out gradually, thus preventing disastrous floods and the formation of ravines; by checking erosion they prevent good soil from being washed into the rivers, and carried away to waste. Forests also directly increase the fertility of land, being capable of forming rich vegetable mould even from mineral soils....forest are a valuable asset in times of famine; for they yield vast quantities of fodder and provide edible fruits and roots...."²

The total forest area of British India including the Shan States in 1930 was 249,710 square miles which was administratively classified as under:

Reserved	..	107,753 sq. miles.
Protected	..	6,263
Unclassed State	..	135,694

The forest resources of India are remarkable. From the slopes of the Himalayas to Cape Comorin, and from the

¹Report, p.81.

²India in 1925-26, p.261.

arid tracts of Baluchistan to the Shan States, forest vegetation varies according to the nature of the climate and the structure of the soil.

We might note, principally, five types of forests in the country:

- a. Arid country forests in Sindh, Rajputana, Baluchistan and parts of the Punjab where rains are scarce. The most important vegetation in these forests is the babul.
- b. Deciduous forests which occur in the sub-Himalayan region, the Peninsula and Burma where teak and sal are found in abundance.
- c. Evergreen forests occurring in eastern sub-Himalayan regions, the west coast of the Peninsula and Burma which are thick with vegetation.
- d. Hills forests found in eastern Himalayas, Assam and Burma where oaks, magnolias and laurels are found, while in Burma and Assam the *khasia* pine lifts its proud head at 3000 to 7000 feet above sea level. In the north-western Himalayas, Deodar tree grows at 6000 to 8000 feet; spruce and silver fir are found mixed with it at higher levels while below it are dense forests of long needled pine from which resin is extracted.
- e. Littoral forests are found on the sea coasts and creeks.

Forest produce is considered usually under two heads: the major produce including timber and firewood and the minor produce embracing bamboos, fruits, fibres, gums, leaves, grass, rosins, barks, animal and mineral products and other miscellaneous products which differ from time to time.

Forest Resources of India.

Year.	Area in Sq. Miles.	Timber and Fuel in Cubic feet.	Minor Produce value in Rs.
1930-31	2,49,710	32,28,52,829	1,25,86,854
1931-32	2,45,831	30,59,11,538	1,13,27,397
1933-34	2,82,664	31,72,57,081	1,12,07,444

Besides contributing directly to the Imperial purse by their major and minor products, the forests are a source of relief and assistance to the agriculturists. Forests offer, for instance, grazing pasture for the cattle, though grazing resulted in definite damage to the forests in the Punjab, in Bombay, in the Central Provinces and in the United Provinces.¹ Forests offer a permanent source of fodder to the agriculturists if they are properly and scientifically exploited. Forests supply fuel not only directly but also by supplying the sources of charcoal for domestic and industrial consumption. Similarly timber may be used for the manufacture of agricultural implements; so also leaf mould may be used by the agriculturists as manure. Forests supplement the income of the agriculturist by offering him subsidiary occupations in forest industries like the manufacture of charcoal, the extraction of turpentine, the cultivation and processing of lac, the exploitation of medical herbs and of oils, gums, rosins, dyeing and tanning chemicals from forest trees, besides the manufacture of barrels from forest woods.

But little is done to improve the commercial possibilities of our forest resources except spasmodic researches in Dehra Dun. No research conducted at Government forest research stations will be of any avail until the interest of the agriculturist is aroused: and the interest of the agriculturist in forest industries will not be aroused as long as he has to liquidate his produce in a competitive circle of exchange. The most important consideration governing the agriculturist's choice of a subsidiary occupation is the problem of converting the produce of his subsidiary occupation into commodities and services he needs in a competitive market—the problem of converting the lac he produces, the charcoal he prepares, the turpentine he extracts into articles of food, clothing and shelter. Until the apparatus of marketing forest produce is rendered efficient, the rural population will evince little economic interest in forest industries.

What about the mineral resources of India?

The mineral resources of India, as the accompanying survey will presently reveal, are varied, but, by no means,

¹Report of the Royal Commission on Agriculture, p.261.

adequate for constructing a powerful and competitive economic system for the country.

The exploitation of manganese in India dates from 1892. Manganese is found in the Vizagapatam district of the Madras Presidency, in Balaghat, Bhandara, Chindware and Nagpur districts of the Central Provinces, in the Panchmahals of Bombay, the Gangpur State in Bihar and Orissa, Jhabua in Central India, in the Singhbhum district in the Central Provinces, the Bellary district in Madras, the Sandur State, Chitaldrug, Shimoga and Kadur districts of the Mysore State and Goa. In 1935, 641,483 tons of manganese were produced from all the mines of this country out of which 67,442 tons were consumed by the Indian iron and steel industry for the manufacture of ferro-manganese and for use in the steel furnaces. 8,549 persons were employed in the manganese quarries.

Iron-smelting was an old established industry in India; and pig iron has been turned out at Kulti since the last quarter of the 19th century. The total production of iron and manufactures in India amounted to 676,691 tons in 1935-36, 627,358 tons in 1934-35 and 550,696 tons in 1933-34. There are four concerns manufacturing steel and iron in India: The Tata Iron and Steel Company, the Indian Iron and Steel Company, the Bengal Iron Company and the Mysore Iron and Steel Works. India enjoys a brisk export trade in iron and steel and ferro-manganese as is shown below:

IRON AND STEEL. (Exports in tons).

Year.	Pig Iron.	Manufactures. Iron and Steel
1913-14	82,592	828
1931-32	350,858	194,329
1934-35	417,059	58,940
1935-36	538,153	58,902

The principal markets for pig iron are Japan, United Kingdom, the United States of America and China. Iron and steel manufactures go to the United Kingdom.

India contributes only 2 per cent to the world production of gold and occupies the seventh place among the gold producing countries of the earth. More than ninety-nine per cent of the gold mined in this country comes from

the Kolar Gold Fields where a single gold-bearing reef of quartz has been struck. The prosperity of the Kolar Gold Fields dates from 1885 and the highest water-mark of production was reached in 1905 with 631,116 ozs. Gold is mined, besides Mysore, in Hyderabad, Madras, Burma, the Punjab, United Provinces and Bihar and Orissa.

The production of gold in India has been as under:—

Production of Gold in India. (Value in £s.)				
Province	1917.	1932.	1933.	1935.
Mysore	2,067,541	1,905,522	2,076,352	2,676,862
Hyderabad	52,013			
Madras	87,066			
Burma	4,248	271	272	8,689
The Punjab	857	36	62	66
United Provinces	31	20	31	13
Bihar & Orissa	40,133	274	1,484	218
Total	2,221,889	1,906,123	2,078,201	2,285,848

Tungsten is essential for the manufacture of high speed steel and for wire for the filaments of incandescent lamps, for dyeing and fire-proofing and other industrial purposes. Tungsten occurs mainly in Burma, in the Tavoy and Mergui districts in the form of wolfram. Outside Burma, wolfram occurs at Singbhum in Bihar and Orissa, at Agargaon in the Central Provinces and at Degana in the Marwar district of Rajputana. The total quantity of tungsten produced in India in 1935 was 3837 tons. About 90 per cent of tungsten goes to the United Kingdom while the balance is taken by Germany, Belgium, Sweden and France.

Tin mining is an established occupation in Burma. Tin is found in the Tavoy and Mergui districts where Chinamen smelt it in native furnaces. Besides Tavoy and Mergui, tin is found in Burma in Amherst and the Karenni State.

The production of tin in India is as under:

1932	.....	4,525.0 tons.
1933	.....	4,503.9 „
1935	.....	5,859.7 „

Lead is mined exclusively in Burma and is from Bawdwin mines in the Northern Shan States. The production of lead ore in 1934 was 443,489 tons, while, in 1935, it was 460,489 tons.

Zinc is also found in Bawdwin mines in the Northern Shan States. In 1935, 78,590 tons of zinc were produced and a large portion of it was exported to foreign countries, the main destination being Belgium, the United Kingdom and Germany.

Of the minor mineral resources of India, corundrum mestic and industrial purposes, the most important is copper. Copper was smelted in former times in South India, Rajputana and in Kulu, Kangra, Nepal, Sikkim and Bhutan regions in the Himalayan zone. Copper is also found in the Bawdwin region of the Northern Shan States of Burma whose copper ore reserves were estimated at 350,000 tons. In the Singhbhum districts of Bihar and Orissa, a copper-bearing belt stretching for a distance of eighty miles has been found. Nellore in Madras also contributes a small portion of copper. The total production of copper in India has been as under:

Year.	Tons.
1914	4,400
1930	123,749
1933	201,722
1935	350,801

Chromite, besides being used for purposes of tanning and dyeing, is also used in the manufacture of chromite bricks. Chromite is mined in Baluchistan, Shimoga and Hassan districts of Mysore, Singhbhum district of Chota Nagpur, and in the Salem district of the Madras Presidency.

The quantities of chromite produced in India are tabled below:

Year.	Tons.
1933	15,526
1934	21,576
1935	39,127

Of foreign trade in chromite, the largest share is taken by Sweden and Norway; France comes next followed by Germany and the United States of America.

Of the metals which are extensively used both for do- occurs in Khasi and Jaintia hills of Assam, Coimbatore, Anantpur, South Canara and Salem districts of the Madras Presidency and at Pipra in the Rewa State. Monazite is found in Travancore, Waltair and Tinnevelly districts of the Madras Presidency and at Pipra in the Rewa State.

Monazite is found in Travancore, Waltair and Tinnevelley districts of the Madras Presidency; magnesite is found in Salem, Seringala in Coorg, Trichinopoly and in Hassan and Mysore districts of Mysore State. In 1935, 3819 tons of monazite and 16,984 tons of magnesite were produced in India.

"The distribution of the natural resources for generating energy which a country possesses," wrote the Indian Industrial Commission, "mainly determines the location of ...those industries in which the cost of fuel for power and heat bulks largely in the total manufacturing charges."¹ Even if the source of power has not been till to-day the main determining factor in the localisation of Indian industrial units, there is no doubt that the industrial future of the country and its place in the economic hegemony of the world will largely be determined by the extent of the sources of power which can be harnessed for the development of industry.

There are five sources of industrial power available in this country: coal, wood fuel, oil and alcohol, wind power and electricity.

The coal fields in this country are classified under two geological divisions: the Gondwana System and the Tertiary beds. The major portion of coal supply in India comes from the Gondwana System as illustrated under:

Coal Production in India. (In tons).

Source.	Five years' average ending 1933.	1934.	1935.
Gondwana Coalfields	21,389,321	21,691,404	22,607,552
Tertiary	386,832	366,043	409,143
Total	21,776,153	22,057,447	23,016,695

Over 72 per cent. of the coal produced in India are quarried from the Jharia and the Raniganj collieries. Raniganj coal fields are in the Burdwan district of Bengal with a tradition dating back to 1820, while the Jharia coal-fields in Bihar began to operate in 1893. Bihar and Orissa have their collieries in Bokaro and Giridh; coal is also quarried in the Pench Valley in Central Provinces and Singrani in

¹Report, p.64.

Hyderabad State. Tertiary deposits are found at Makum in Assam and Mianwali in the Punjab.

Petroleum occurs chiefly in Yenangyaung, Yenangyat, Singu and Minbu in Burma, Digboi in Assam, and Attock in the Punjab. The total production of petrol in India was as under:

Production of Petrol in India.

Year.	In millions of gallons.
1904	118.5
1913	277.5
1921	305.5
1930	311
1933	306
1934	322

The total production of oil in India is less than one per cent of world production.

The Indian forests are the main source of wood fuel. Since the greatest difficulty of this source of power is transport, as was put in the evidence before the Royal Commission,¹ the question of harnessing wood fuel either directly or indirectly, by conversion into charcoal for industrial purpose on an appreciable scale is hardly an economic proposition.

The prospect of utilizing wind power for industrial purposes must naturally be very limited considering the structure of the country. Except along the sea-board and on the Deccan upland regions, we rarely come across industrial winds as in Holland, or Norway, or Sweden.

The most important source of power in our country is electricity. In fact, the prospects of hydro-electric development are so great that, "India promises to be one of the leading countries of the world, in regard to the development of hydro-electric power."²

As we have seen above, the position of India in regard to either coal, or petrol, or wind power can hardly be said to be happy. Fortunately, India has ample sources of hydro-electric energy waiting to be harnessed. It has been pointed out that the minimum flow of the seven great rivers eastwards of the Indus is capable of producing three million horse power for every thousand feet of

¹Report of the Royal Commission on Agriculture, p.263.

²Indian Year Book, 1936-37, p.304.

fall from the Himalayas, while the rivers of the Deccan are capable of producing several million units of electrical energy so that India can have no dearth of industrial power.

Bombay alone is proud of its three gigantic schemes which have supplied electrical energy to Bombay for the past three decades: the Tata Hydro-electric Power Supply Co., Ltd., the Andhra Valley Power Supply Co., Ltd., and the Tata Power Co., Ltd.—which together produce a normal energy of 246,000 h.p. Bombay's cotton mills and other industrial and transport concerns consume nearly 150,000 h.p. of electrical energy.

The first hydro-electric scheme undertaken in India was that of the electrification of the Cauvery at Sivasamudram in the Mysore State, which has a total capacity of 46,000 h.p. Mysore has ample scope for improvement of hydro-electric schemes. Mekedatu, the Shimsha Falls, the Krishnarajasagara Reservoir and the Jog Falls are among the major sources of electrical energy which are waiting to be harnessed.

Madras has developed the Pykara Hydro-electric works on the Pykhara river which drains from the Niligiri Hills. The Pykhara scheme has a total capacity of 120,000 h.p. of electrical energy.

Another important scheme in Madras is the Mettur Hydro-electric scheme which is subsidiary to the irrigational plan of the Mettur Reservoir, a fact which would have gladdened the heart of Sir Arthur Cotton. The Mettur Scheme will generate 60,000 h.p. of electrical energy.

Kashmir has harnessed the Jhelum river near Baramulla, thirty-four miles from Srinagar, producing nearly 20,000 h.p. of energy.

Besides these existing schemes, many more schemes are projected all over India. The Mandi Project in the Punjab on the Uhi river has a capacity of 48,000 h.p. The United Provinces have conceived of a hydro-electric grid scheme which will carry electric power to the rural and urban areas of the province. Nainital has a baby hydro-electric plant and so too Shillong. Kalimpong and Kurseong have schemes of hydro-electric generation which will supply cheap electric power to the tea factories of the neighbourhood.

This short survey of the sources of power in this country has revealed to us the scope of hydro-electric development in the land. Both for industrial and agricultural purposes, the supply of cheap power is as vital as the supply of cheap means of transport. The future of hydro-electric development in this country is very bright: not even a small portion of the available sources of electric energy has been yet tapped. "Undoubtedly", wrote the Indian Industrial Commission nearly quarter of a century ago, "the most important sources of water power immediately available are found in the streams and rivers draining the Himalayas; but, except for the electric lighting of hill-stations like Simla and Darjeeling, no profitable application of it has yet been discovered."¹ It is, however, encouraging to note that in recent years attempts have been made to produce electric energy from gigantic irrigational projects like the Mettur Dam, thus enhancing the economic importance of irrigational schemes. Nor is the generation of electric energy without due significance to agricultural development. As the Royal Commission pointed out, "From the agricultural standpoint, electric power has at present two main uses, as a motive power for machinery including pumps, and as a means of obtaining supplies of synthetic nitrogen from the air."²

With a progressing and meticulous harnessing of all electric energy that can be 'efficiently' exploited, and with the construction of reservoirs where rivers are fitful and rains, precarious for the triple purpose of irrigation, transport and supply of power, there need be no undue anxiety regarding the economic future of India and such a co-ordination would ensure for India, if not a predominant place in the international economic order, at least a stable and respectable position.

"Though", writes the Official Surveyor of India's economic condition, "the geographical position of India is favourable for international commerce, the littoral of the peninsula is remarkably deficient in harbours to accommodate vessels of the draught now employed in the carrying trade."³

¹Indian Industrial Commission Report, p.68.

²Report p.362.

³Handbook of Commercial Information for India, 1937, p.62.

The harbours of the west coast from Baluchistan to the Cape, with the exception of the natural harbours of Karachi, the Cutch ports, Cambay, Bombay, Marmugao and Cochin are closed to traffic during the monsoon months—May to September. And the east coast is surfbound and there are only three harbours of importance—Madras, Vizagapatam and Calcutta. Practically six-sevenths of the total foreign trade of India is concentrated in seven ports: Calcutta, Bombay, Rangoon, Karachi, Madras, Cochin and Vizagapatam, of which three are natural harbours: Bombay, Karachi and Cochin. The result is an excessive urbanisation of the seven ports with its own socio-economic problems of adjustment—which are awaiting solution for the past century.

Growth of the Major Urban Areas in India.

City.	Population	Density	Variation percentage from 1881 to 1931.
Calcutta	14,85,582	24,354	79.2
Bombay	11,61,383	48,000	50.2
Madras	6,47,230	22,249	59.1
Rangoon	4,00,415	16,146	198.4
Karachi*	2,63,565	6,720	258.3

*Maximum variation.

(From the Indian Year Book, 1936-37, p.37).

And the trade of these ports is typical of the economic system which has been established as a result of economic evolution in the past century. Bombay has a large foreign trade in bricks, coal, cotton, firewood, grains, iron and steel, manufactures, sugar, timber, oils and seeds, hides and skins and manganese; Karachi has a large foreign trade in wheat, cotton, barley, rice, gram, oil seeds, skins and hides, and bone meal and is developing enormously as the chief centre for aerial transport from India; Cochin trades mainly in coir, yarn, lemon-grass, cashew kernels, copra, coconut oil, rubber and groundnuts; Madras imports rice, food-grains, coal, oils, manures, paper, timber, sugar, chemicals, cotton manufactures and machinery and exports groundnuts, hides and skins, tobacco, ores and kerb-stones, oil-cakes, turmeric and coffee; Calcutta has an enormous trade in almost all the articles produced in India with jute

and jute products included. The foreign trade of Rangoon is mainly in rice, timber and minor forest produce.

"Nature herself," writes Wicksteed, "has specialised her own constituent elements in the primeval forests, in the coal-beds, and in all the living things she has produced... And at every stage of the world's history living humanity, entering upon her heritage, directs her means towards the accomplishment of her ends, pushing out her tentacles, feeling forward and signalling backward; every step being in a sense irrevocable, but none irreparable."¹

How has nature specialised in India? Has she specialised in such a way that India can only be an agricultural country for a long time to come? Or has she provided ample resources for the evolution of an industrial civilisation in this country? "I do not agree that India is an agricultural country," said Montgomery Martin, nearly a century ago, "India is as much a manufacturing country as an agricultural",² and the Indian Industrial Commission wrote of the high level of technical skill that the country had reached in the industrial arts and crafts at an earlier age.³ With all her natural equipment, as late as the dawn of the twentieth century, "amidst signs of progress and prosperity from all parts of the Empire, India alone presented a scene of poverty and distress. Increasing wealth, prospering industries, and flourishing agriculture had not followed the flag of England in her greatest dependency."⁴

W H Y ?

India had a respectable place in the economic order of the old world. To-day she is suffering from a maladjustment of her resources to her needs. Should we seek the reasons for this maladjustment in the race qualities of the people? Or in the inadequate supply of natural resources essential for economic evolution on capitalistic lines? Or in the absence of a cold climate which alone, according to Montesquieu, produces "a greater sense of superiority—that is, less desire for revenge; and a greater opinion of security—that is, more frankness, less suspicion, policy and cunning,"—qualities which are essential for economic effi-

¹Philip Wicksteed: *Commonsense of Political Economy*, p.393.

²R. Dutt. *India in the Victorian Age*, p.114.

³Report, p.1.

⁴Romesh Dutt, *India in the Victorian Age*, p.iv.

ciency in a regime of individualist competition? Or should we seek for the reasons of maladjustment in the cultural rigidities set up by an ancient social and intellectual civilisation which render adjustment between the social and the economic systems highly intricate? On a satisfactory answer to these questions, depends a sensible forecast of the future of India's economic civilisation.

Here we are concerned with the adequacy of natural resources for the evolution of an efficient economic system in the country.

Our survey has so far revealed to us that the future of India in the economic hegemony of the world *can never be commanding*. There are very few prospects of expansion of the area under cultivation without encroaching on the forest resources of the country or without a gigantic programme of integral land reclamation as in Italy. Out of a total area of 1,162 million acres surveyed in this country in 1933-34, 668 million acres were in British India; land not available for cultivation, i.e., barren, uncultivable, marshy and land used for buildings and roads amounted to nearly 145 million acres; and some 89 million acres were under forest. Culturable waste, i.e., land never cultivated or had been abandoned for *economic* reasons—accounted for 154.25 million acres and fallows for another 52.3 million acres.¹ This clearly sets a limit to the competitive exploitation of land in this country on any appreciable scale. Further the contours of land and the social system of the country together with the factors of individualist production and free competition, render large scale production in agriculture impracticable. Naturally, India is handicapped in the international agrarian markets where she has to meet competition from comparatively young and virile economic zones like America, Argentina, Australia and the African Colonies.

Sir M. Visvesvaraya complains that "the *per capita* production in India from agriculture in normal times is Rs. 59, whereas that in Canada is Rs. 213."² But it so happens that India is not Canada. Apart from the limitations set on

¹India in 1934-35, p.1.

²Planned Economy for India, p.139, popular edition.

agricultural progress by socio-economic rigidities, nature herself has set certain limitations on the Indian soils. Intensive soil research has shown that the Indian soils are deficient in nitrogen; this certainly sets a limit to the grade and variety of crops that can be grown for consumption in a competitive market. The agriculturist has, further, to face the gigantic problem of monsoon-sowing, while none of these problems have affected agricultural production in Canada or any other country with which Sir M. Visvesvaraya is pleased to compare India's agricultural production.

In matter of mineral resources as well, no one, who carefully studies the position of the country, can be over-sanguine about the future of India's economic evolution in a competitive system of production and exchange. Mineral wealth of the country is deposited in places where transport becomes an economic problem, as the coal industry has amply testified. A second difficulty is the supply of cheap industrial power to facilitate efficient exploitation of our mineral resources. Sources of coal, charcoal, and oil power are scattered in nooks and corners of the country which are difficult of efficient access. In point of oil-power our survey has revealed the inadequacy of oil resources to meet the demands of an industrialised India; regarding electric power, which alone seems to have a bright future in this country, it can only be generated in places which are far away from industrial centres. No plan or industrial reconstruction can afford to forget the gigantic problem of urbanising the country's vast rural population—a problem which is inevitable in any scheme of evolution of the country on competitive lines.

All this points to one conclusion. If, by "economic progress" we mean the adjustment of the rate of regional production to the rate of international consumption, India cannot have *economic progress*. If, by "economic progress", we mean the co-ordinated administration of national resources—both natural resources and human resources—future economic evolution can only give India, what it has given France, a respectable, but not a commanding, place in the economic civilisation of the world.

CHAPTER II.

THE PROBLEM OF HIGHER CONSERVATION.

"A RAPIDLY growing population," writes Professor Cannan, "will find out different things from those which a slow-growing or stationary population will find out and make: the accumulated knowledge and the accumulated material equipment will both be different. Consequently, if the population of the world had remained at the level Mill thought desirable, other things, so far from being equal, would have been so different from what they actually are, that it is quite useless to say that if they had been the same as they are, the smaller number of people would now have been more productive than the larger number now in existence actually are."¹ Thus a dynamic population implies invention, discovery, colonisation and commerce. If the nineteenth century in Europe was a century of economic progress, it was also the century of a "startling growth of population and of their standards of life."

This, naturally, leads us back to Child who had argued that "whatever tends to the depopulating of a country tends to the impoverishment of it", and that, "most nations in the civilised parts of the world are more or less rich or poor proportionately to the paucity or plenty of their people, and not to the sterility or fruitlessness of their land."² This might have shocked Malthus, but not the present heads of totalitarian states.

Is there, then, any causal connection between the dynamics of population and economic progress? Is a growing population always associated with economic progress? How is our own country placed with regard to the problem of adjusting the speed of economic progress to the dynamics of population? These are some of the questions that are answered in this chapter.

¹Review of Economic Theory, p.82.

²Discourses on Trade C.X.

The people of this country can be classified under seven distinct race groups:¹ the Turko-Iranian, the Indo-Aryan, the Scytho-Dravidian, the Aryo-Dravidian, the Mongolo-Dravidian, the Mongoloid and Dravidian types. The Turko-Iranians are the Afghans Baloch and Brahui and other races of the North-west Frontier Provinces. The Indo-Aryans are found in the Punjab, Rajputana and Kashmir representing the Rajaputs, Khattris and the Jats. The Scytho-Dravidians are the Maharattas, the Kunbis and the Coorgs of Western India. The Aryo-Dravidians or Hindustan races are found in the United Provinces, parts of Rajputana and in Bihar. The Mongolo-Dravidians are found in Lower Bengal, Orissa and East Bengal. The Mongoloid races are found in the Himalayan region, Nepal, Assam, Burma representing the Kanets of Lahul, and Kulu; the Lepchas of Darjeeling and Sikkim, the Limbus, the Murmis and Gurungs of Nepal, the Bodo of Assam, and the Burmese; while the Dravidian type extends from Ceylon to the valleys of the Ganges including Madras, Hyderabad, the Central Provinces, most parts of Central India and Nagpur.

According to the census of 1931, India had a population of 352,837,778. This huge population does not belong to a homogeneous strata of cultural development. It comprises of all the stages of human development; from the Angami Nagas of north-east India "who live by head-hunting and robbing" to the highly westernised Parsi in Napean Sea Road of Bombay.

"Great communities," said Bagehot, "are like great mountains—they have in them the primary, secondary and the tertiary strata of human progress; the characteristics of the lower regions resemble the life of old times rather than the present life of the higher regions."² From this point of view India is no exception to all the limitations of great communities.

With this thought in mind let us proceed to investigate the relationship between population and progress in India.

The growth of population in India since 1891 has been tabled below:

¹Sir Henry Risley: Caste, Tribe and Race. The Gazetteer of India, Vol. I, Ch.6.

²The English Constitution, Worlds Classics, p.6.

Population Growth in India since 1891.¹

	1931		1921		Percentage of Total population		
Class of Places.	Places	Population	Places	Population	1901	1921	1891
Total	699,406	352,837,778	687,981	318,942,460	100	100	100
Rural areas	696,831	313,852,351	685,665	286,467,204	89	89.8	90.5
Urban areas	2,575	39,895,427	2,316	32,475,276	11	10.2	9.5
Towns with a population of —							
„ 100,000 & over	38	9,674,032	35	8,211,704	2.7	2.6	2.2
„ 50,000 „ „	65	4,572,113	54	3,517,749	1.3	1.1	1.1
„ 20,000 „ „	268	8,091,288	200	5,968,794	2.3	1.9	1.9
„ 10,000 „ „	543	7,449,401	451	6,220,889	2.1	1.9	1.9
„ 5,000 „ „	987	6,992,832	885	6,223,011	2	2	2.1
Under 5,000	674	2,205,760	691	2,333,129	.6	.7	.6

It will be noticed from the above that the rate of urbanisation in India is very slow from 9.5 per cent in 1891 to 11 per cent of the total population in 1931. Cities with a population of 100,000 and over have seen very little improvement. Cities with 100,000 and more of population were only 38 in number in 1931, and in the same year there were only three cities with a population of 500,000 and over for the whole sub-continent: Calcutta, with a population of 1,484,582; Bombay, with a population of 1,161,383 and Madras, with a population of 647,230. For an area of one million square miles and a total population of three hundred and sixty million people, India even to-day does not possess a single city as big as even Vienna, Calcutta being only half as big as Shanghai—a fact which has had far reaching effects on the economic structure of India.

¹The growth of population in British India since 1861.

Year	Population. Millions.	Year	Population. Millions.
1861	196.00	1901	231.61
1871	195.84	1911	236.93
1881	199.20	1921	247.00
1891	221.38		

From Statesman's Year Book 1925, p.127.

Urban Centres of the World and Their Population.

Centre.	Population.
London	8,202,818
New York	7,986,000
Tokyo	6,085,800
Berlin	4,224,874
Moscow	3,663,000
Shanghai	3,565,476
Chicago	3,101,900
Osaka	3,000,000
Leningrad	2,720,000
Vienna	1,874,581
Calcutta	1,485,582
Bombay	1,161,382
Madras	647,230

The average span of life has decreased even in the last decade from 24.8 years and 24.7 years respectively for males and females in 1921, to 23.2 years and 22.8 years in 1931.

This period has seen gradual urbanisation of India—for in the same period, towns with a population of 5000 to 10,000 increased from 885 in 1921 to 987 in 1931. Similarly towns with population ranging from 10,000 to 20,000 have increased from 451 in 1921 to 543 in 1931; towns with a population of 20,000—50,000 have risen from 200 to 268; towns with a population of 50,000—100,000 from 54 to 65 and towns with a population of 100,000 and over have risen from 35 to 38.

Is there, then, any causal connection between progressive urbanisation and lowered vitality?

The greatest scourge of India has been from the time of Aryan physicians like Charaka and Susruta in 500 B.C., tuberculosis. Of tuberculosis, the Official Reporter writes: "Its wide distribution in recent years must be due largely to increase of urbanisation, which produces over-crowding and other conditions favourable to tuberculosis. The present position would appear to be that, whereas the towns are heavily infected, the rural population has, for the most part, not yet experienced the full force of the disease."¹

Sir John Megaw reported in 1932 that there were probably two million tuberculosis cases in India and com-

¹India in 1934-35, p.116.

mented that the figure might be too low considering the low proportion of cases which come up for cognisance. The larger portion of tubercular patients remain subterranean either because of ignorance or because of poverty. The toll of death from tuberculosis, as far as could be ascertained, was "over 51,000" in 1934 alone.

Next in the range of devastation and crippling of the country's population come what are known as "social diseases"—again a special heritage of urbanisation. "The indications are", we are told on authority, "that these diseases (venereal diseases) occur chiefly among the poorer classes, in the great seaport cities, in large towns inland and in certain hill tracts, especially the Himalayas."¹

The provinces recording the highest infection of social diseases in 1933 were Burma, with 170 per 10,000 of population; Delhi, Madras and Bombay with 130 each; the Central Provinces, with 100; Bihar and Orissa, 90, and the United Provinces and Bengal, 80 each.² How far in urban areas tuberculosis, diabetes, lowered vitality and infantile mortality are the result of social infection, it is difficult to estimate in the absence of efficient pathological research into the problems. The Executive Officer of the Bombay City imputes infantile mortality to infantile debility and malformation, including premature birth, respiratory diseases coming next followed by convulsions, diarrhoea and enteritis.³ How far these are connected with the prevalence of social diseases, is a question which intensive research into the problems of public health alone can disclose. The figures of infantile mortality are considerable for urban areas as the following table indicates:

Infant Mortality per 1000 live-births.

City	Urban Areas.		
	Years.		
	1925	1927	1930
Bombay	357	316	298
Calcutta	326	340	268
Madras	279	240	246
Rangoon	352	294	278
Delhi	183	201	199

¹India in 1934-35, p.115.

²India in 1934-35, p.115.

³Indian Year Book 1936-37, p.39.

Statistics of infantile mortality for rural areas are not available.

In addition to these essentially urban diseases, we have three major epidemics which scourge urban and rural populations alike—cholera, small-pox and plague. There were 281,791 cases of cholera in 1934, as against 133,079 in 1933 and 70,000 in 1932. The epidemic was severe in Bihar and Orissa with 61,540 cases; while Bengal registered 59,174; Central Provinces, 50,649; Madras 29,427; the United Provinces, 27,205 and Bombay, 26,751. "The number of recorded deaths rose from 68,318 or 0.3 *per mille* to 199,708 or 0.7 *per mille* or an increase of 192 *per cent*. A study of statistics for the years 1877 to 1933 gave no clear evidence of a significant fall in cholera mortality in British India during this period."¹ Small-pox, though it mowed 250,366 and 261,242 people in 1933 and 1934 respectively, has shown a downward tendency. Plague, however, has made up for small-pox and in 1934 alone took the heavy toll of 103,271 people.

Most of these diseases are more prevalent and have greater chances of propagation in urban than in rural areas.

Besides these epidemics which seriously undermine the health and vitality of the Indian population, there are other agencies actively engaged in the same direction, which must now be noted.

A study of sex-ratios clearly indicates a progressive decline in the ratio of women to men. The ratio, according to the census of 1931, stood at 901 women for every 1000 men among Muslims, and 951 women for every 1000 men among Hindus. There is actually an excess of women over men in Madras, Bihar and Orissa and Central Provinces, while the whole of India has 171,008,885 women for 181,828,923 men in 1931.

Sex Ratios in India—1931.

Province.	Population.	Males.	Females.
Ajmer-Merwara	560,292	296,081	264,211
Assam	8,622,251	4,537,206	4,085,045
Bengal	50,114,002	26,041,698	24,072,304
Bihar and Orissa	37,677,576	18,794,138	18,883,438
Bombay including Aden	21,930,601	11,535,903	10,394,698

¹India in 1934-35, p.114.

Burma	14,667,146	7,490,601	7,176,545
Central Provinces & Berar	15,507,723	7,761,818	7,745,905
Madras	46,740,107	23,082,999	23,657,108
The Punjab	23,580,852	12,880,510	10,700,342
United Provinces	48,408,763	24,445,006	22,963,757
States and Agencies	81,310,845	41,897,367	39,413,478

This must naturally affect marriage ratios and also the birth and death rates—leaving a lasting impression on the rate of progress of population in the country. It is here that we have to branch out into a sociological digression.

The most powerful institution affecting not only the relationship between the sexes, but also the wider problem of economic administration in India is the institution of compulsory early marriage.

The accompanying table furnishes the requisite information regarding marriages under 15 years of age.

Marriages under 15 years.

Per 1000 of Total married persons

Description	Females.	Males.
India	157.3	65.7
Burma	6.7	1.8
India proper	161.8	68.0
Hindus	164.1	73.1
Muslims	174.3	59.4
Jains	108.3	32.5
Tribal	93.3	49.6
Sikhs	74.6	26.9
Christians	43.3	15.4

It will be observed from the above table that the number of married persons under 15 years is larger among girls than among boys. Nor does this table give any indication of the magnitude of the problem of early marriage among persons who have not reached the age of discretion, nor of marriages which not insignificantly distort the scale of occupational preferences of the average Indian.

The first question that occurs to anyone who takes a cursory glance at the above table is: has early motherhood, as a consequence of early marriage, any connection with infantile mortality? And do mothers bearing children in their teens give the nation a race weak in physique and feeble in intellect?

These questions need deep research into the medical and biological matters connected with the evolution of races in the tropics before they can be answered satisfactorily.

There can be no doubt, however, that our population question on the side of sex-relationships is moving in a vicious circle. If the average span of life in India, of 23.2 years and 22.8 years for men and women respectively, induces among the population the desire to complete their cycle of life earlier, it is possible to assert that with every acceleration towards early marriage, the span of life in India goes on contracting.

Logically, the argument proceeds: can late-marriages in India increase this span of life? How far is the high death-rate in India the result of lowered vitality as a consequence of early marriages? And how far is it (the high death-rate) generated by diseases which are the heritage of twentieth-century urbanisation in India like, tuberculosis, social disease and lowered vitality brought about by conditions of life incompatible with healthy living and proper nourishment, and not by early marriage alone? And how many of the diseases which are responsible for a high death-rate would still ravage the population even if the institution of early marriage were abolished? These are questions which cannot be answered satisfactorily in the absence of proper data. We cannot, however, ignore that as long as no attempt is made to bring medical aid to the majority of the 500,000 rural zones, and no attempt is made to control public vitality and nourishment in urban areas, it is indeed unfair to blame India's sociological institutions for the sins of an un-coordinated "civilisation".

"The supply of raw human material", says Wicksteed, "is determined largely...by non-economic considerations. Children are largely or exclusively brought into existence incidentally to the realisation of the purposes or the expression of the impulses of their parents, irrespective of their economic significance to themselves or to others... Forecasts as to the state of the markets into which children might be expected ultimately to enter no doubt exercise an influence on the marriage and birth rates in some strata of a community; but broadly speaking, the production of undifferentiated human capacity must be regarded as a branch of direct expenditure, regulated in its relation to

other expenditures by prudence or recklessness, by abundance or paucity of total resources, by custom and tradition, by impulse ranging over the whole scale of the material and spiritual nature, by conviction, by deliberate resolve and calculation, in a word, by all the considerations that determine our general administration of resources; but it must in the main be regarded as 'consumption' technically, not as production, that is to say, as a way in which people choose or allow themselves to expend their resources, not as something they undertake for the direct convenience of others in order to secure things they themselves desire in return."¹ Thus the question of population is not a mere essay at the adjustment of economic ratios; it is a problem of cultural co-ordination.

In this country we have long heard the Malthusian grumble that India is 'overful of human beings' and it is time that we assessed the proper significance of such assertions.

"At every period during the progress of cultivation", wrote Malthus, in a fit of reformist fever, "from the present time to the time when the whole earth became like a garden, the distress for want of food would be constantly pressing on all mankind, if they were equal. Though the produce of the earth might be increasing every year, population would be increasing much faster; and redundancy must necessarily be repressed by the periodical or constant action of misery or vice."² Here, what Keynes called, the Malthusian Devil was born!

After establishing that "population when checked increases in a geometrical ratio, subsistence increases in an arithmetical ratio,"³ Malthus proceeds to pen his most celebrated paragraphs.

"It may be safely pronounced," he declaims, "therefore, that population when unchecked goes on doubling itself every twenty-five years, or increases in a geometrical ratio.

"The rate according to which the production of the earth may be supposed to increase, it will not be so easy to

¹Commonsense of Political Economy. Prof. Robbins' Edition, pp.336-37.

²Essay on the Principles of Population, p.144.

³p.14, 22.

determine. Of this, however, we may be perfectly certain, that the ratio of their increase must be of a totally different nature from the ratio of the increase of population. A thousand millions are just as easily doubled every twenty-five years by the power of population as a thousand. But the food to support the increase from the greater number will, by no means be obtained with the same facility. Man is necessarily confined in room. When acre has been added to acre till all the fertile land is occupied, the yearly increase of food must depend upon the amelioration of land already in possession. This is a stream which, from the nature of all soils, instead of increasing, must be gradually diminishing. But population, could it be supplied with food, would go on with unexhausted vigour; and the increase of one period would furnish the power of a greater increase in the next, and this without any limit."¹

It is needless to go into the intricacies of post-Malthusian fineries or arguments. We can do no better than take note of a brilliant paragraph from John Anderson regarding the problem of adjustment between subsistence and population. "Wherever population increases", he asserts, "the produce of the country must be augmented along with it, *unless some moral influence is permitted to derange the economy of nature*. The natural conclusion from this undeniable fact is that no legislator need ever be afraid, in a country which is not destitute of soil, that an augmentation of population will decrease the means of subsistence for the people, unless it shall be his desire that it should be so, by favouring such arrangements as shall prevent it from becoming the interest of individuals to attend to the cultivation of the soil in a proper manner."² There is much in Anderson that requires to be carefully studied in regard to the problem of population in this country.

"Taking the preseat population of the world at one and a half thousand millions," wrote Marshall in a careful

¹See Prof. Cannan's Review of Economic Theory, p.71.

²*A calm investigation of the circumstances that have led to the present scarcity of grain*, quoted in Cannan's Review of Economic Theory, p.78.

foot-note, "and assuming that its present rate of increase (about 8 per 1000 annually....) will continue, we find that in less than two hundred years it will amount to six thousand millions; or at the rate of about 200 to the square mile of fairly fertile land....Meanwhile there will probably be great improvements in the arts of agriculture; and, if so, the pressure of population on the means of subsistence may be held in check for about two hundred years, but no longer."¹ And then he goes on to prophesy, "it remains true that unless the checks on the growth of population in force at the end of nineteenth century are on the whole increased (they are certain to change their form in places that are as yet imperfectly civilized) it will be impossible for the habits of comfort prevailing in Western Europe to spread themselves over the whole earth and maintain themselves for many hundred years."²

All this implies that something must be done to bring about some kind of relatively stable adjustment between the dynamics of population and the rate of production of subsistence all over the world. Otherwise the world will have to face a major economic crisis which may sweep away the very foundations of ordered society. For, as Professor Robbins would put it: "Men will not stand indefinitely a regime of catastrophic fluctuations. Neither will they acquiesce without blind protest in protracted impoverishment."³

Is there any way, then, of discovering that the rate of growth of population is properly adjusted to the rate of economic progress or more properly speaking, that the rate of economic progress is keeping pace with the dynamics of population?

Here we come upon the celebrated doctrine of "Optimum Population".

"It has been suggested," says Prof. Cannan, defining Optimum Population, "that we may say that at any given time, or what comes to the same thing, given any particular conditions or other things being equal, there is what may be called a point of maximum return attained when the population is so exactly fitted to the circumstances

¹Principles of Economics, foot-note to page 180.

²Ibid, p.180.

³The Great Depression, p.198.

that returns (or productiveness of labour) would be less ('diminished') if it were either less or more than it is. This population has been christened the *optimum* population."¹

We need not digress into the limitations of the optimum theory of population in its practical bearings in this thesis.

"Population", proceeds Prof. Cannan, "at any one moment of time cannot be dissociated from the population which preceded it nor from the population which is to follow after it, and the 'optimum' or best possible population, conceived in the way suggested, of one moment say 1848, may be quite incompatible with the optimum conceived in the same way for 1828 or 1868 or even, though in less degree, or 1798 and 1898, and in still less degree with that of still earlier and later dates. Therefore, in conceiving the optimum population of any particular time, we must not confine ourselves to that date without looking before and after, but remember that the population is the result of the existence of previous populations and will be the cause of subsequent populations, and that the best is what is best in the long run, so that the best population for any particular moment is that which is compatible with population taking the best line of movement, whether that be increase or decrease, slow or rapid."²

These limitations only emphasise that the problem of population is not a problem of adjustment of economic ratios, but that it is a live problem of incessant cultural conservation.

In such a context, the concept of optimum population is hopelessly lost in an ever shifting panorama of economic change and social adjustment, which implies that the problem of population resolves itself into an enquiry into, not whether the rate of population-growth is adjusted to the pace of economic progress, but whether economic change is properly adjusted to the dynamics of population.

What is the position of India in such a study?

"The growth in the numbers of a people depends," wrote Marshall, "firstly on the **natural increase**, that is, the excess

¹Review of Economic Theory, p.81.

²Review of Economic Theory, pp.82-83.

of their births over their deaths; and secondly on migration."¹

The following table illustrates the birth and death-rates in India from 1871 onwards.

Birth and Death Rates in India from 1871 onwards.

Years.	Birth-rate per mille.	Death-rate per mille.
1871-80	..	20
1881-90	24	26
1891-1900	34	31
1901-10	38	34
1911-20	37	34
1921-30	35	26
1931	34	25
1932	35	22
1933	36	22
1934	34	24.9

The accompanying table indicates birth and death rates in the various provinces in recent years.

**Birth and Death Rate According to Provinces
in 1934. (per mille.)**

Provinces	Birth rate.	Death rate.
Delhi	37	29
Bengal	29	23
Bihar & Orissa	32	25
Assa	30	19
United Provinces	35	26
The Punjab	38	26
Central Provinces & Berar	43	36
Madras	35	24
Bombay	34	24
British India	24	24.9 .

It is pointed out that India's birth rate in 1925 was nearly twice that of England and Wales and that at the rate of population-increase India is maintaining, the country's population would reach the four-hundred-millionth limit by 1941. By fitting Prof. Pearl's logistic curve to the population figures of India from 1872-1931, we discover the rate of growth to be 4.56 per cent for

¹Principles, p.180.

the decade 1931-1941 and an estimated population of 368,922,362 by 1941.¹

The aggregate variation in population since 1881 has been as under :—

The Aggregate Variation of Population since 1881. Per cent.

Area.	1921-31	1911-21	1881-1931.
All India	+10.6	+1.2	+39.0
British India	+10.0	+1.3	+36.8
Indian India	+12.8	+1.0	+46.6

The abnormally low rate of increase during the decade 1911-21 was due to the influenza epidemic of 1918.

While the Indian population increased by 39 per cent during the half-century, 1881-1931, the population of England increased by 58 per cent from 1870 to the first decade of the present century and Europe experienced on the whole an increase of 45 per cent; but during the same period, Europe also experienced a phenomenal economic change and commercial expansion which enabled the European nations to keep their increased populations in comparative comfort by industrialisation at home and colonisation abroad.

From all accepted standards of population dynamics, the rate of progression of population in this country has been neither alarming nor abnormal.

Nor is the death-rate in India ascribable to "over-population". The high mortality in India is more the result of the specially favourable climate of the tropical regions for the genesis and spread of diseases unknown in temperate zones, like malaria, and tropical fevers. "The information furnished for the great group of infectious diseases of world import", said the Public Health Commissioner in India in 1925, "i.e., plague, cholera, small-pox, yellow fever, typhus, malaria and dysentery shows that if we except typhus and yellow fever, India is one of the world's reservoirs of infection for the others and the main reservoir of infection for plague and cholera.... Briefly their implication is that India's house, from the public health point of view, is sadly out of order and that this disorder requires to be attended to."² One significant

¹Indian Year Book, 1937-38, p.596.

²Quoted in the Indian Year Book, 1937-38, p.594.

fact which emerges from any study into the public health of India is the incompatibility of industrial urbanisation with health and efficiency in the country. Are the tropical fevers and diseases the result of "over population"? The Royal Commission on Agriculture, declaimed vehemently, "Malaria slays its thousands and lowers the economic efficiency of hundreds of thousands; plague and cholera sweep the country from time to time; hook-worm disease, kala-azar and diseases arising from diet deficiency insidiously reduce the labour power of the cultivating classes."¹ Could we conquer these diseases if we had a smaller population? We must discover causal connection between these tropical diseases and undernourishment before we can construct our syllogistic reasoning which will lead us to, what Hazlitt called, the Malthusian "paralogism". Nor is the task easy. The complex which has been responsible for the propagation of infection and tropical diseases, is not a simple phenomenon: urban insanitation due to serious overcrowding and lack of proper medical and sanitary control over rural public health are as much responsible for the genesis and propagation of infections and tropical diseases as the size of the population of the country.

From this point of view, industrial urbanisation of India has to be carefully assessed. In this country we have about 11.0 per cent of the total population living in urban areas—provincial urbanisation ranging from 3.4 per cent in Assam to 22.6 per cent in Bombay, the greatest degree of progress being noticeable in towns with a population of 20,000 to 50,000. Industrial urbanisation implying the emergence of huge cities with congregations of hundreds of thousands of people, with the major problems of 'slum-economy', urban sanitation, power and water supplies and suburban expansion on a large scale has not yet fortunately arrived in this land. Already we notice signs of 'distress among the urban populations of this country which are entirely out of proportion to the benefits which they have derived from this commercial urbanisation. It will at once be recognised that the urban population of the country is hardly significant with only 11.0 per cent of the total population while France has 49 per cent, Northern Ireland 50.8 per cent; Canada 53.7 per cent; the United

¹Report, p.482.

States of America 56.2 per cent and England 80.00 per cent of their populations congregated in urban zones.

As a consequence the density of population in this country has a very special significance, as we shall note further down this chapter.

We have argued that the existence of high mortality cannot be taken as a vindication of the Malthusian 'paralogism' so long as even a smaller population has no chance of immunity from the special infections and fevers of the tropics. People are victims to disease and death in India not because of poverty and lowered vitality as a result of abnormal increase of population alone, but also as a result of the tropical and sub-tropical environment which renders the visitation of these diseases an annual event like the monsoon, coupled with the lack of medical facilities in the majority of the five hundred thousand rural zones.

The most important single observation which emerges out of any consideration of the problem of population dynamics in this country is that urbanisation is utterly incompatible with a tropical or sub-tropical civilisation. With only 11 per cent of the total population of this country living in towns ranging from 5,000 to over 10,000 of population, we hear the scourage of tuberculosis, social diseases and epidemics (which take a heavier toll among the urban population than among the much larger rural population) which clearly demonstrates that the problem of urbanising India is beset with immense responsibilities.

No tropical continent can pretend to successfully urbanise its civilisation on western lines. Life in the tropics is essentially rural and must remain so if the influence of climate and culture is in any way a determining factor in the evolution of the civilisation of a region. It is true that India, in the past, had her big urban centres. Clive himself testifies to the existence of cities of the size of contemporary London.¹ But none of India's ancient cities were planned as big industrial or commercial centres with congested factories where huge congregations of labourers toiled shut off from the stimulating rays of tropical sunlight and fresh air. Naturally though tuberculosis was an old disease, it was neither so virulent nor so widespread as among the urban population

¹See H. G. S. Cotton, in the *New India* published before 1890.

of to-day. They did not have the slum-problem to the same extent as we have in our own days; nor were the workers condemned to toil in the added heat of a factory-interior by day and sleep in the chawls by night as they are to-day. No industrial city of modern India has yet successfully tackled the problem of providing its labouring population with plenty of fresh air and sunshine; and only very recently have some spasmodic attempts been made to provide decent living room for the labourers as in the Development Department Chawls at Worli and Naigaum in Bombay. The effect of overcrowding and congested life in the chawls on the health and morale of the urban population cannot be sufficiently exaggerated. Suffice it to say that it has produced all the horrors of urban existence in Europe in the early days of the Industrial Revolution. The observations made by Marshall on such urban existence: "Badly built houses with imperfect drainage cause diseases which even in their slighter forms weaken vitality in a wonderful way; and overcrowding leads to moral evils which diminish the numbers and lower the character of the people",¹ ring strangely true of modern industrial India.

Urban population in India is also faced with the gigantic problem of "rest". There is no gainsaying that the majority of the urban population in the big cities of India is overworked to scrape a living wage from a 'capitalist' economic system. "Overwork of every form," we learn on authority,¹ "lowers vitality; while anxiety, worry and excessive mental strain have a fatal influence in undermining the constitution, in impairing fecundity and diminishing the vigour of the race."² No one can pretend that the Indian urban population, with an ever-contracting volume of real incomes and a high competitive wage-level, and the consequent 'anxiety, worry and excessive mental strain' can long maintain its vitality and fight the long list of urban maladies.

Is there, then, any wonder if there is very little progressive rural exodus in this country for nearly half-century of urban evolution?³

¹Principles, p.197.

²Marshall Opt. Cit. p.197.

Urban Population

Years.	Percentage to total population.
1891	9.5
1901	9.9
1911	9.4
1921	10.2
1931	11.0

The following table shows the variations of population abroad during periods of industrialisation, especially in all the major European countries.

Variation of Population among the Great Powers during Periods of Intensive Industrialisation.

Countries.	Births.			Deaths.		
	1841-50	1861-70	1900-05	1841-50	1861-70	1875-1904
England	34.6	36.0	29.0	23.7	24.0	17.2
Germany	36.1	37.2	35.5	26.8	26.9	20.8
France	27.3	26.3	21.7	23.2	23.6	20.4
Italy	..	37.5	33.5	..	30.6	27.8

Urbanisation in England in the nineteenth century is illustrated in the accompanying table.

Urbanisation of England during her Industrial Revolution.

Class of cities.	Number of cities.		
	1801	1851	1891
With population over 20,000	15	63	185
„ between 10,000-20,000	31	60	175
„ between 5,000-10,000	60	140	262

In France and Germany urbanisation progressed as under during the period of industrial expansion.

FRANCE Percentage of Population living in Communes of a Population of 2000 and over.

Year	Percentage.
1846	24.4
1861	28.9
1876	32.4
1891	37.4

(From Meuriot: Des Agglomérations Urbaines dans L'Europe contemporaine).

GERMANY	Year	Percentage.
	1867	35.8
	1880	42.6

In 1801, London was the only city in England with a population in excess of 100,000 and had a population of 958,000, i.e., a little more than half the population of Calcutta to-day; but by 1851, the population of London had grown to 2,363,000 and in 1911, it was 7,252,933; while by 1881, England possessed twenty cities with population exceeding 100,000. Similarly Paris in 1801 had a population of 547,756 less than that of Madras to-day, but by 1911, it had shot up to 1,807,044. So also Berlin grew up from 172,000 in 1801 to 2,070,695 in 1910.

"The growth of large cities," writes Mackenzie, "constitutes the greatest of all problems of modern civilisation."¹ The major problems of urbanisation are absent in our country. We do not hear of the slum problem and the problems of diminishing rural labour, the problem of transit and the major problems of the 'submerged tenth' in this country. As we have seen, even the small degree of urbanisation in India has generated in the country sociological and medical problems which are entirely out of proportion to the benefits that the country has received from urbanisation. There are only two paths which can render industrial urbanisation possible in India on a large scale: either a cultural revolution or an entire reconstruction of the very bases of our economic system.

Another aspect of the problem of population dynamics we shall have to study is migration. In the history of the evolution of European populations, migration has played no insignificant part. Supan, a German economist, estimates that in the four hundred years since the discovery of America, a total of 105,000,000 men and women have gone out from European countries to take up their residence in America, Asia, Africa and the Islands of the Pacific and that 31,500,000 migrated to these parts in the nineteenth century alone. This is taken to be a conservative estimate by Ogg who places the volume of the total population which migrated from Europe in the nineteenth century at 40 millions.² Between 1850 and 1900, more than fifteen million people migrated from the United Kingdom to the other parts of the world.

Compared to these gigantic movements of European

¹Introduction to Social Philosophy, p.101.

²Economic Development of Europe, p.337.

populations, migration in India is utterly insignificant: only 2,300,000 of Indian population has remained outside the country within the British Empire. Of these, 165,500 are settled in the Union of South Africa, of whom 142,979 are in Natal alone, 26,759 are settled in Kenya; Mauritius has absorbed 268,870; Trinidad and Tobago have 138,667; British Guiana 130,540; Fiji 75,117 and the rest of the migrants have distributed themselves over Tanganyika, Jamaica, Hongkong, Uganda and Zanzibar. Outside the British Empire, there are about 100,000: Dutch East Indies having an Indian population of 25,000; Dutch Guiana 35,000 and the rest being distributed among Madagascar, the United States of America, Portuguese East Africa, Persia, Iraq and the other parts of the world.

Causes of emigration have been classified as positive and negative: the positive causes being the attractions and the new vista of prosperity which the land offers and the negative causes being the discomfort and abominable conditions at home.² In India migration has taken place in the primary strata of the population because of abject poverty and the visions of prosperity the new lands and the propaganda of agents conjure up in the minds of the emigrants. That is how we come across many Indian emigrants going to the other parts of the Empire mostly as manual labourers.

At any rate Indian emigration, though insignificant, has neither been the result of overpopulation nor has been a deciding factor in the dynamics of the population of the country.

Internal migration in India, though small, is significant. Thus Delhi has nearly 41 per cent of immigrants. The most important inter-provincial migration is noticeable between Assam and other provinces, notably, Madras, Bihar and Orissa. Bihar had lost nearly 1,291,567 persons in the 1931 census by migration. Internal migration is of six kinds: casual, i.e., from village to village; temporary, due to constructional works and fairs and religious festivals; periodic or seasonal; semi-permanent where migration is lasting and daily for bazars and employment within very short distances. "Periodic migration is particularly heavy at harvest time and also at the changes of the seasons

²Fairchild, Quoted by Ogg. in opt. cit. p.338.

when tradesmen, herdsmen, graziers and labourers from Kabul, Baluchistan, Kashmir and the hills move down to the plains during the winter."¹

With an economic structure which has neither permitted the evolution of industrial urbanisation nor assisted the expansion of population over the territorial boundaries of India, the task of maintaining the huge population of the country on the agricultural resources of the nation has proved profoundly complicated. It is in the sense of discovering how the country has been maintaining her vast population on her agrarian resources and how long she can afford to maintain it that way, that a study of the problem of density of population is of supreme importance.

According to the census of 1931, the density of population in India was 195 per square mile,² while the density of population in other countries of the world was under.

Belgium	654 to the sq. mile.
United Kingdom	685
France	184
Germany	352
U. S. A.	41
Japan	443
India	195
British India	248
Indian States	115

It must be admitted that at first glance the density of population in India does not appear to be alarmingly high, especially when it is compared with the density of population of the United Kingdom or of Germany or of Japan. But in our study of the problem of population-density, we must remember that the other countries with which we are comparing India are all industrial countries and consequently are capable of maintaining a higher density of population at comparative ease.

When we compare India's density of population with countries with an essentially agricultural or pastoral economic civilisation, we can at once see the difference.

U. S. A.	41 per sq. mile.
New Zealand	11.8 „

¹Indian Year Book, 1936-37, p.451.

²Census Report, p.4.

Egypt	34	per sq. mile.
Spain	107	"
France	184	"
India	195	"

In the absence of large urban areas and with only 11 per cent of the population living in towns, the gravity of the problem becomes at once apparent, when we realise that India has attempted to maintain a higher density of population than even progressive countries like the United States of America, France and British Dominions like Canada and New Zealand. Nor is this all. When we come to consider the population which some parts of the country are pretending to maintain, the problem assumes gigantic proportions. The province of Bengal, for instance, has to maintain a population of 646 per square mile, Oudh has a population of 529 living for every square mile on the average, with Delhi and Madura leading the list with 1,110 and 817 per square mile respectively.¹

Is there any wonder then that there has been an unmitigated crisis in the economic life of the country during the past century?

The high density of population explains why out of 259 million acres of land sown in 1934-35, food crops alone occupied 213 million acres and other crops were relegated to 46.5 million acres. Under such circumstances "Progress is necessarily slow" as the Official Chronicler incessantly complains,¹ not because of the "dislike of change inherent in the average villager", but because of the desperate need of conserving his agrarian resources. In fact, the Indian agriculturist is trying to attain the impossible: he is attempting vainly to preserve his structure of production-for-subsistence within a competitive framework.

What are the problems which this high density of population has created in the land? Has it affected the standard of life of the people?

"In most countries", wrote Malthus, "among the lower classes of people, there appears to be something like a standard of wretchedness, a point below which they will not continue to marry and propagate their species. This standard is different in different countries, and is formed

¹Sir M. Visvesvaraya, *Planned Economy for India*, p.11.

¹India in 1934-35, p.2.

by various concurring circumstances of soil, climate, government, degree of knowledge, and civilisation, etc. The principal circumstances which contribute to raise it are, liberty, security of property, the spread of knowledge, and a taste for the conveniences and the comforts of life. Those which contribute principally to lower it are despotism and ignorance."² From this view-point, it looks as though we have not yet reached 'the standard of wretchedness' prescribed by Malthus. As Malthus himself and as many other sane economists would admit, standard of life is not an absolute concept but must be considered in its regional context. Thus standard of life in Bombay will not be the same as standard of life in Agra or Attiguppe; nor will it be the same, in Bombay itself, between localities, like Parel and Warden Road. Similarly standard of life in 1914 cannot be taken as standard of life in 1940, even in the same locality, for the simple reason that life is dynamic and each stride in the progress of civilisation and technology brings a new set of goods and services into the general circle of exchange. The twentieth century has seen enormous expansion in what the Americans call "de luxe" articles like radios, gramophones, electric shavers, pocket-cameras, illustrated magazines and new toilet goods which were undreamt of by any average family even ten years ago. "When primary necessities are met," says Loveday, "the further rise in purchasing power and in the standard of living shows itself in a demand for personal services, sport, entertainment, etc., for more highly worked-up forms of raw material, for travel, literature and not for goods which involve a proportionate increase in the basic products. Material civilisation may involve for a long time to come a growing specialised demand, say for copper for the electrical industry, rubber for tyres or other materials of typically 'twentieth century' industries, but certainly not of food and clothing, nor for primary products as a whole."¹

Nor is India free from this general trend of international economic life. The accompanying table reveals to what

²Quoted in Prof. Cannan's Review of Economic Theory, p.348.

¹Quoted in Review of Trade of India, 1930-31, p.3. See also for fuller elucidation of the situation, Andre Siegfried *La Crise Britannique au XXe Sciele*, Section. Transformation de la Consommation Mondiale, p.74-77.

extent India also has experienced a widening of its demand for the articles of the New Century.

These articles no doubt go to form the standard of the urban, or what Bagehot called, the "tertiary" strata of the population. It is true that some of the twentieth century articles have penetrated rural zones, like razor-blades, soaps, mechanical toys, electric flashlights, cheap gramophones of Japanese manufacture; but the extent of their penetration is inconsiderable. The table clearly demonstrates the extent to which 'economic progress' has become "localised" in this country.

Imports. (In thousands of Rupees).

Articles.	United Kingdom		Japan		U.S.A.	
	Pre-war.	1937-38	Pre-war	1937-38	Pre-war	1937-38
Cycle and parts	29,40	87,95	...	16,52	...	...
Motor Vehicles and parts	74,50	2,15,81	...	...	8,49	2,63,05
Rubber manufacturers, tyres etc.	16,45	1,17,22	...	17,53	16	21,62
Polishes.	9.48	21,89	...	...	...	...
Toilet requirements	10.35	26,25	1,31	11,73	2,22	20,48
Toys and games.	16,75	10,79	3,16	25,93	...	...
Umbrellas.	24,71	2,46	4,91	17,94	...	...
Woollen Manufactures	1,85,24	1,04,62	8	1,32,91	...	...
Stationery.	41,44	35,63	2,17	17,01	2,05	5,42
Glass and Glassware.	22,26	11,22	10,70	44,48	1,17	77
Artificial silk	...	11,29	...	4,41,27	...	...
Instruments and apparatus.	1,04,88	2,89,85	85	36,65	5,86	94,10

The following table which reveals the economic position of urban workers clearly shows what little room there is for improvement in their standards of life.

Wage-rates in India.

Class of labour	Wage rates per day		
	Up-country.	Towns.	Cities.
Semi skilled	10 as.	12 as.	14 as.
Unskilled men	6 as.	8 as.	12 as.
Unskilled women	4 as.	6 as.	10 as.

The standard of life in different cities is clearly indicated in the accompanying table which reveals how the working population distribute their income.

Family-budgets.

Percentage distribution of Expenditure.

Groups.	Bombay.	Ahmedabad.	Sholapur.	Rangoon
Food	46.60	57.90	49.25	52.7
Fuel and lighting	7.11	7.04	9.60	5.2
Clothing	7.75	9.45	11.86	10.6
House-rent	12.81	11.74	6.27	13.9
Miscellaneous	25.73	13.87	23.02	17.6
Total	100.00	100.00	100.00	100.0

(From the Indian Year Book, 1937-38. p. 520)

"Leaving out exceptionally rich districts like Backergunj, Delhi and Ahmedabad," wrote Romesh Dutt early in the century, "and exceptionally poor districts like Fyzabad, the wages of the able-bodied agricultural labourer range from 4sh. to 6s. 8d. a month. Except in very rich districts, therefore, the agricultural labourer does not get even 3d. a day; his average earnings scarcely come to 2½d. per day. Some deduction should be made from this, as he does not get employment all through the year; and 2d. a day therefore is more than all he hopes to get throughout the year."¹

In Dutt's days, the wages were as under.

Bengal	Patna	6s. 8d. to 8 s.
	Backergunj	10s. 8d.
Agra and Oudh	Cawnpore	5s. to 6s. 8d.
	Fyzabad	2s. 6d. to 5s. 6d.
The Punjab	Delhi	10s. 8d.
Central Provinces	Jubbulpore	5s. 4d.
	Raipur	5s. 4d.
Madras	Bellary	6s. 4d.
	Salem	4s. 8d.

(See Dutt: India in the Victorian Age, p. 606).

Calculating on the average daily wage of 6 annas per day for unskilled labour upcountry, even on a liberal estimate, an agricultural labourer's monthly income comes up to eleven rupees and four annas, which corresponds roughly to 17s. 6d. of Dutt's calculation; i.e., roughly four rupees more than his estimate for the districts of Delhi and Backergunj.

¹Economic History of India in the Victorian Age, p.605.

Making due allowance for the fluctuation in the volume of real incomes from 1900 to date, the agricultural labourer does not seem to be in any more enviable position than his father or grandfather at the dawn of the present century. We must however not lose sight of the fact that the technological progress of the quarter century that has elapsed since Dutt wrote may have brought in some more articles of comfort within the rural and urban circles of exchange; but the fundamental position remains unchanged. For has not the Royal Commission on Agriculture declared as late as 1926, that "the main characteristics of village life are those of the centuries anterior to British rule"¹?

This leads us to the conclusion that apart from a minor portion of the eleven per cent of the urban population in India, the average Indian has experienced no substantial progress in his standard of life. "The appalling poverty and joylessness of his life under such conditions cannot be easily pictured", said Romesh Dutt at the dawn of the present century. "His hut is seldom rethatched, and affords little shelter from cold and rain; his wife is clothed in rags; his little children go without clothing. Of furniture he has none; an old blanket is quite a luxury in the cold weather; and if his children can tend cattle, or his wife can do some work to eke out his income, he considers himself happy."²

It is in this perspective that we must view the influx of the twentieth century articles into India. The consignments of cycles, imports of electrical appliances—fans, toasters, hair-driers, electric razors, gramophones, radios, and sports goods, picture palaces—these ought not to be confused with a rise in the general standard of life in the country. Nearly 314 million people are still living enclosed in the insular rural zones, and are oblivious of the ordinary comforts of the modern age. The life of the country is still that of a bygone age; that is how Dr. Anstey could come across bullock carts jolting side by side with modern vehicles of transport in the streets of Bombay.

The following table clearly indicates, when read with the normal requirements for nourishment in the tropics,

¹See Report, p.5.

²Romesh Dutt, *Economic History of India in the Victorian Age*, p.606.

what little scope an average family in the urban areas has for proper nourishment let alone for the use of the twentieth century articles.

**Average Income and Size of the Family of Workers
in Urban Areas.**

	Bombay.		Ahmedabad.		Sholapur.		Rangoon.	
Size of the family	3.70		3.87		4.57		3.01	
Average monthly income	Rs. 50-1-7	A. P. 44-7-2	Rs. 39-14-10	A. P. 58-8-3				

Distributing on the average, fifty per cent of the specified income on food and dividing it among four persons, the average size of an Indian family, we can hardly get six rupees per head. This as regards industrial workers whose income is, if not considerable, at least regular. What about the agricultural labourers in the vast rural zones of the land? They hardly get even four annas a day, and that too only during the rural seasons. The result is obvious.

"There is a long list of diseases," writes the Official researching into the problem of nourishment in India, "common in India, due in some way or the other to dietetic causes. Such are: beriberi, certain anaemias of pregnancy, keratomalacia, osteomalacia. States of malnutrition which fall short of serious disease are widespread."¹ The same authority goes on to comment, "Human beings, and particularly children, cannot thrive at their best on a diet composed largely of cereals, such as rice, millet, etc., and insufficiently supplemented by other foods. To make good the deficiencies of such a diet, they must consume fair quantities of foods like milk, green vegetables, eggs, fruits, etc. These are...known as the 'protective' foods...In general, diets in India are defective because they do not contain 'protective' foods in sufficient abundance."²

What does a well-balanced diet cost?

"Well-balanced diets are," we learn from the same authority, "in general more expensive than deficient ones. For example, the 'insufficient and ill-balanced' diet...which is largely composed of rice and contains very little milk,

¹Health Bulletin of the Indian Research Fund Association, Coonoor, 1938, p.11.

²Health Bulletin, 1938, p.12.

vegetables or fruit, would cost about Rs. 2-8-0 per adult per month; the 'well-balanced' diet, richer in milk and other foods, Rs. 5 to 6," and the same authority goes on to pronounce, "it is at this point that the nutrition worker encounters the main difficulty. *Those who suffer from under and mal-nutrition usually cannot afford to purchase a satisfactory diet.*"¹ There are in this country at least three hundred million people who cannot afford the luxury of a "well-balanced" diet. This has a deadly effect on the evolution of the people of this country, especially when expectant and nursing mothers even cannot get sufficient nourishment. "In actual fact," writes the same authority, "ill-nourished women of the poorer classes have often not got nearly enough milk to supply the needs of the growing infant."² Nor are the cattle which have to supply nourishment to the people of this country faring any better. If the Royal Commission on Agriculture spoke of the existence of a vicious circle in the cattle economy of the country, the Health Bulletin, (which cannot be invoked too often, in this connection), says: "Everybody knows that the milk yield of cows in India is small compared to the yield of fat glossy-skinned cows fed in the rich pastures of Northern Europe and America,"³ and goes on to add, "exactly the same is true in the case of poor Indian women," and as a result, though the average Indian infant compares favourably with the infants of the other countries at birth, "at the age of one year Indian infants of the poorer classes are on the average small and light compared with the usual standards, and this may be in large part due to the fact that they have never received enough food."⁴ It is here that the student of economic conditions in India feels the infernal breath of the Malthusian Devil!

What is the remedy? Is it regulation of the volume and rate of growth of population through "Neo-Malthusian" methods?

The Neo-Malthusians for this country are legion. "In India and China," said C. B. Fawcett in a paper before the International Population Union, "the social traditions which make the family the principal unit of society, and for the maintenance of the family insist on early marriage

¹Health Bulletin, opt. cit. p.15 (Italics mine).

²Ibid, p.18.

³Ibid, p.18

⁴Ibid, pp.18-19.

and the essential need of children, have played a large part in the accumulation of their dense populations. The same solidarity of the family tends to keep all its members near their ancestral home, and so to check outward migration and a free spreading of the population."⁴ In a similar vein, Dr. Anstey says: "India's economic future depends, in the main, not upon the inauguration of particular schemes of development, or the adoption of particular lines of policy, but upon more fundamental social reforms and reorganisation, directed towards controlling the size of the population, breaking up the existing over-rigid social stratification, stimulating enterprise and energy, promoting education and replacing the forms by the spirit of religion."¹ We are concerned in this chapter only with that portion of Dr. Anstey's thesis which argues for the control of "the size of the population", the rest being outside the scope of economic study. In this regard it would be interesting to note what Professor Giuseppe de Michelis says. He asserts that, "the enormous territories of *India* and *Western Asia*...ought to be considered as a field of development not only for the better distribution of the native population, but for colonisation by non-Asiatic elements."² What then is the truth between these theses? Should India solve the problem of her population by controlling population dynamics? Or should she solve it by "a better distribution" of the existing population, so that there may be room even for colonisation by non-Asiatic "elements"? According to the calculations of Professor Alois Fischer of Vienna, the population-capacity of the world is as follows in which he has demonstrated that India has not yet reached the "standard of wretchedness" forecast by the great Malthus:

Country	Possible Density	Present Density (1925)	Population Index. ³
Russia	48	24	50
France	91	73	81

⁴Proceedings of the International Population Union—Problems of Population Density—p.196.

¹Economic development of India, p.487.

²World Reorganisation on Corporative Lines, Appendix viii, p.292.

³Quoted by Professor Michelis in World Reorganisation on Corporative Lines, p.254.

Germany	95	134	140
Italy	113	127	113
Great Britain & Ireland	86	155	179
United States of America	63	14	23
Canada	16	9.7	6
India	82	67	82

Against such a background, any attempt at controlling the dynamics of population by the Neo-Malthusian method or "birth-control" is like asking the Mountain to go to Mohamed. "Not only", wrote the Official Chronicler in 1931, "is artificial control advocated by a number of medical writers, but Indians can now boast of a Neo-Malthusian League with two Maharajas, three High Court Judges, and four or five men very prominent in public life as its sponsors."¹ That is exactly where the danger lies. "The real danger seems now to be," wrote Prof. Cannan, "not that the total of population will be much too great or much too small, but that the growth of the more capable and efficient sections may be so checked relatively to that of the less capable and efficient by the new method of control that the effect on the total productivity may be bad."² No reduction of the volume of population in India can be efficient in relieving 'general distress', unless the density of population in the country is brought down to the level of density of population prevailing in countries like Canada, New Zealand, Australia or the United States of America, if we are to achieve economic efficiency through control of the volume of population alone. The point which Prof. Cannan has tried so hard to drive home should not be missed. "In practical life," he says, "the existing population has to be taken as the starting-point, and whether it is above or below the optimum from the point of view of the whole mankind, past, present and future is of no importance, since we cannot alter the past. Moreover, in modern civilised life we cannot even alter that immediate future which we call the present; we cannot deliberately reduce the population by murder, and to increase it by

¹India in 1930-31, p.153.

²Review of Economic Theory, p.88.

the addition of babies in excess of the number of deaths or decrease it by keeping the births below the deaths is a slow process. Thus all we can do is to alter, and that only very gradually, the population of the future by some action which will increase or diminish either mortality or natality—the converse of mortality.”¹

Thus where reduction of population-density through Neo-Malthusian methods is only a slow and gradual process, the only way of facing the problem of restoring the relationship between the volume of population and the volume of subsistence is by the conservation of food and other resources of the country so as to secure a ‘decent’ standard of life for the people of the country.

In no country can ‘higher’ conservation precede natural conservation. That would only precipitate social disaster and economic anarchy. The only safe way of seeking adjustment between population and subsistence is by bringing the rate of production of subsistence up to the rate of progress of population, not only by increasing the productivity of every available unit of agrarian production in the country, but also by stabilising and standardising the urban and rural standards of life.

How can we achieve such an adjustment in India? What are the prerequisites of such a plan? These are some of the questions which are explored in the following pages.

There are two acceptable ways of solving the population problem in this country: the first is by natural conservation, and the second, by adjustment of the density of population to regional resources; not by voluntary restraint or late marriages but by a more efficient administration of our natural and human resources.

In this connection we can do no more than study the scheme advocated by Dr. J. D. Black of Harvard University, for the conservation of natural resources, in its application to India.²

According to Dr. Black, food-resources of a country can be increased in several ways:

1. By bringing more land into food production.
2. By applying more labour etc. to existing land.

¹Review of Economic Theory, p.83.

²Problems of Population, Proceedings of the International Population Union, p.334.

3. By substituting mechanical for animal power.
4. By improving the organisation of the productive resources of agriculture—getting the right crops on the right land, combined with the right management and labour etc.
5. By improving the arts of agricultural production—introducing better cultural or breeding practices, improving breeds and varieties, etc.
6. By shifting to food-products yielding higher nutritive value per acre.

Before we proceed to examine the prospects of such a scheme of food-conservation for India, we must remember the limitations under which such a discussion can take place. The following analysis assumes that the framework within which adjustment has to take place between the food resources and population of the country is essentially competitive in character, thus imposing on each attempt at adjustment the limitations of a competitive administration of resources. Where possible, attempt has been made to give a picture of the adjustment that would take place, had the basis of economic administration been non-competitive.

India, being an old country, the prospects of expanding her land resources are severely limited under a competitive system, since any attempt at reclaiming a portion of the now "uncultivable" land would seriously upset the agrarian cost-structure and precipitate a major crisis in the rural zones. The effect of a competitive agrarian market on the administration of our land-resources becomes clear by the extent of land classified as "cultivable waste other than fallow"—land, exploitation of which is impossible in a competitive agrarian market.

The following table illustrates the position of India regarding her land resources.

From the accompanying table it is obvious that the limits set to extensive farming in the country are immense, though there is still a vast area of 153 million acres of cultivable waste which could be harnessed for production under an integrated scheme of food conservation, but which cannot be brought under cultivation so long as the agricultural markets are competitive and the agricultural cost-structure has to conform to the movements of prices of primary articles in the international markets.

Land Resources of the Country. (In thousands of acres).

Description	1924-25	1925-26	1932-33
Area by professional survey	667,646	667,610	668,045
Area according to village papers	664,538	664,491	667,732
Area under forest	86,514	86,937	88,803
Area not available for cultivation	150,971	150,194	145,550
Cultivable waste other than fallow	152,894	151,872	154,610
Fallow land	47,179	49,306	50,693
Net area sown	226,980	225,849	228,076

The dangers of a growing population in the country become at once patent as we note the almost stagnant volume of production implied in the following table for three decades.

Gross Area Sown.

Year.	*Gross area sown in thousands of acres.	Percentage of variation over 1908-'09.
1908-09	246,189	..
1914-15	260,641	5.9
1920-21	239,202	-2.8
1924-25	259,784	5.5
1925-26	256,991	4.4

*Areas sown twice are counted twice.

From the dawn of the present century to date, the net area sown has not crossed the 230 millionth acre limit, while population has increased 39.00 per cent over the half-century beginning in 1881.

Nor has the sea-borne trade of India increased during the same period in any considerable measure, by way of compensation, as evidenced below.

Value of total foreign trade of India.

	In lakhs of rupees.		
	Pre-war average.	Post-war average.	1937-38
Imports.			
Merchandise	1,51,67	2,67,05	1,77,23
Treasure	8,32	13,26	19,76
Imports Total	1,98,87	3,20,21	1,81,94

Exports.

Merchandise	2,24,23	3,06,38	1,89,77
Treasure	8,32	12,26	19,76
Exports Total	2,32,55	3,19,64	2,09,53

Nor has the total acreage under food-crops increased substantially to meet the requirements of the growing population.

Production of food crops.

Crops.	In thousands of acres.			
	1924-25	1930-31	1932-33	1934-35
Food grains	200,328	202,736	201,463	200,635
Food crops & Sugar	10,326	11,110	11,668	12,009
Total	210,654	213,846	213,131	212,644

Then how is the country maintaining her huge population? By a lower standard of life? By industrialisation? By importation and inter-regional transfer of food-products?

Though the jute mill industry has grown from 21 mills in 1879-80 and 1883-84 with a capital of Rs. 271 lakhs, to 99 mills in 1933-34 with a capital of Rs. 2,370.7 lakhs and the cotton mill industry from 58 mills employing 39,537 persons in 1879-80 to 344 mills with a labouring population of 428,658 in 1933-34; and the iron and steel industry has grown from its small beginnings at Kulti in 1875 to its network of giant factories in Bihar and Orissa, Burma, the Central Provinces, Madras and Mysore with an annual turnover of 2,364,297 tons as shown in 1935, industrialisation is still confined to a microscopic patch of the great sub-continent. It has neither been powerful enough nor varied enough to seriously affect the standard of life of the three hundred and fifty million people of this great country. Obviously, the country is fast heading towards the inexorable "standard of wretchedness".

The seriousness of the problem becomes clear by a study of the following tables:

Production of Rice in British India.

Year	Area in acres.	Production in tons	Exports in tons
1913-14	76,908,000	30,138,000	2,419,850
1918-19	77,613,000	24,318,000	2,017,900
1930-31	79,367,000	31,277,000	2,253,784
1933-34	79,224,000	29,745,000	1,732,539
1934-35	78,129,000	29,024,000	1,592,537

Production of Wheat in British India.

Year	Area: acres.	Production: tons.	Export: tons
1912-13	27,000,000	8,000,000	1,308,000
	(average)		(average)
1929-30	31,654,000	10,469,000	196,505
1933-34	35,992,000	9,424,000	10,962
1934-35	34,490,000	9,728,000	9,590

The foregoing tables show how in the quarter of a century beginning from 1910, the production of rice and wheat, the staple food of the population of the country, has been practically stationary, the population in the same period having increased by 11.8 per cent. The quantity of food that the country imports is hardly significant though, in recent years, we have been importing rice from Burma, the volume of such imports having reached in 1937-38, 1,267 thousand tons. Even the Official Chronicler of India's trade cannot help saying: "The large imports of rice into India are necessitated by the fact that the production of rice in India which is the largest and most popular staple food crop has not kept pace with the growth of population."¹

According to Dr. Black's scheme, the first step in increasing the food supply of a country is by bringing more land under food production. Of the total area of 259 million acres sown in this country in 1934-35, food crops occupied 213 million acres. Of the total area available for cultivation in India, cultural waste and fallow land occupied nearly 200 million acres—nearly as vast in extent as the area cultivated in that year.

The following table gives us the position, in detail, of our land resources for the year 1934-35.

The Detailed Position of our Land Resources for the year 1934-35.

Provinces.	Net area sown.	Current fallows	Cultivable waste other than fallow.
Ajmer-Merwar	359,186	143,777	276,781
Assam	5,988,044	1,823,513	19,120,432
Bengal	23,357,000	5,424,285	6,626,134
Bihar & Orissa	24,131,800	6,931,605	6,982,180
Bombay	32,801,971	10,717,834	6,665,962

¹Review of the Trade of India 1937-38, p.23.

Burma	18,164,499	3,799,494	59,679,265
Central Provinces & Berar	24,668,067	3,988,965	14,209,929
Madras	32,801,820	11,165,710	13,441,825
Punjab	26,504,016	4,619,933	14,215,656
United Provinces	35,662,051	2,910,102	10,217,742

Thus the scope for extensive farming under a systematic scheme for natural conservation of the country is not inconsiderable in Assam, Burma, the Central Provinces, Madras, the Punjab and the United Provinces, and the three provinces of Bengal, Bihar and Bombay—in fact, the scope is appreciable all over the country in general. But where is the scheme which can bring all our land resources into an integral system of land-conservation?

The continued depression in agricultural prices since the Armistice and the accelerated production abroad of primary products leading to a major crisis in the agrarian markets of the world, have seriously damaged the machinery of agricultural production in this country. Because of the exigency of having to liquidate his produce in a competitive circle of exchange, the agriculturist in India has not been able to cultivate all the land which has been given to him by bounteous nature. Even taking the status quo in the distribution of our land resources between food and non-food crops there is ample scope for the food-crops for spreading themselves over the rest of the land-resources at present exploited in the country. But the incentive of a competitive agrarian market is too feeble to ensure such a process.

We could, in the second place, apply more labour to existing land a feat which would be possible either in a new country or in an economic system where the exigency of adjusting productivity to the fluctuations of a competitive agrarian market does not exist. Under competitive conditions, a greater application of labour etc. to existing land in an old country like India accompanied by scientific farming and mechanical agriculture would only create further confusion in the rural markets, and force on the country the gigantic problem of liquidating rural exodus. Scientific and mechanical agriculture is impossible without

the emergence of broad acres and rural depopulation. How are we to consolidate the existing subdivided and fragmented holdings into more efficient units of agricultural production? The socio-economic implications of a movement towards vast enclosures in India—which is primarily an agricultural country are too immense to be even dreamt of.

The third suggestion made by Dr. Black in his scheme of food conservation is that of substituting mechanical for animal power. This suggestion requires careful consideration. The extent to which animal power is used in this country becomes at once apparent as we note that British India had 67 cattle per hundred acres of net area sown as against 38 in Holland and 25 in Egypt. This is partly the effect of the existence of a vicious circle in the cattle economy of the country: "the worse the conditions for rearing efficient cattle are, the greater the numbers kept tend to be. Cows become less fertile, and their calves become undersized and do not satisfy cultivators, who, in order to secure useful bullocks, breed more and more cattle....Large numbers of diminutive cattle are...a serious drain in the country and its fodder supply."¹ Agricultural implements are naturally suited to the available animal power in the country. Even the Royal Commission on Agriculture has testified that "the present implements are the best he (the Indian agriculturist) can use with the bullocks he possesses."² The Indian agriculturist, therefore sticks to his old plough and his other antiquated agricultural implements even though they are unsuited to increase the quantity of his produce or the quality of his crops. In the circumstances, the food supply of the country is gravely threatened by a successive reduction in volume and a progressive deterioration in quality. But the substitution of mechanical power for animal power presents many *technical* difficulties. Economically, mechanisation of agricultural production in India is unprofitable as long as India remains within the ambit of a competitive economic system and her agricultural cost-structure has to be adjusted to price-fluctuations in the international

¹Report of the Royal Commission on Agriculture, p.191.

²Ibid, p.110.

markets for primary products; *technically* mechanisation of agriculture is handicapped by the presence of subdivision and fragmentation of agrarian holdings besides the problem of fuel supply to agricultural machinery in the five hundred thousand rural zones which are connected neither by rails nor by roads with the metropolitan and distributing centres of India. Only under a non-competitive plan of agrarian conservation, where the spectre of keeping the agricultural cost-structure adjusted to conditions in a competitive agrarian market shall have vanished, can there be mechanisation of agricultural production in our country.

Fourthly, food supply can be increased "by improving the organisation of the productive resources of agriculture, getting the right crop on the right land, combined with the right management and labour, etc."

Distribution of crops in agricultural countries where agrarian production is efficiently organised for liquidation in a competitive international agrarian market is not arbitrary—crops are efficiently regionalised by the interplay of economic forces of the competitive market and the country is amply rewarded by a good cost-price margin. But India stands on a different plane altogether from any of the essentially agricultural countries like America, Australia, Canada, the Argentine Republics, African Colonies and Russia where agrarian production has been 'efficiently' organised for the exploitation of a competitive international market for food and raw materials. The greatest factor which has 'dictated' the distribution of crops in the country is the problem of equating a subsistence type of production with a competitive agrarian market. Naturally under the aegis of an economic system where the individualist small farmer is pitted against the gigantic and complicated machinery of a competitive international agrarian market, his production can neither be "efficient" nor "adequate" and he attempts to rescue his family from the Juggernaut wheels of a competitive circle of exchange by growing essential crops on his small farm which can keep the wolf from his hut as long as is possible under the circumstances. He aims at no profit, nor does he wish to "commercialise" his agricultural production.

This can be clearly seen in the way the available land-resources of the country have been distributed among the food crops.

**Distribution of Crops over the Rural Areas from
1924-25 to 1934-35 (In thousands of acres).**

Crops	1924-25	1930-31	1934-35
Rice	79,306	80,632	79,520
Wheat	24,848	24,797	25,655
Bajra	11,966	13,698	13,102
Ragi	3,980	3,973	3,738
Maize	5,348	6,458	6,185
Gram	16,552	13,644	13,732
Jowar	22,470	22,808	21,853
Barley	6,970	6,693	6,587
Other food grains	28,888	30,033	30,263
Total food grains	200,328	202,736	200,635

(Indian Year Book 1937-38, p. 319).

Under such a system food crops occupy the best and richest soils of the country. India has a variety of soils which we have already considered, the most famous of them all being the rich alluvial soils of the Indo-Gangetic plain, Sindh, northern Rajputana, the greater part of the Punjab, the United Provinces, Bihar and Bengal and half of Assam and along the courses of the great rivers of South India like the Godavari, the Krishna and the Kaveri. "These deposits", according to the Royal Commission on Agriculture, "consist of level tracts of heavy rich loams producing under irrigation, excellent crops of rice and sugarcane."¹ Naturally rice is the predominant crop in Bengal where it occupied in 1934-35, 20.73 million acres, for a total sown area of 27.92 million acres; in Assam 4.85 million acres for a total area of 6.71 million acres; in Bihar and Orissa 13.73 million acres for a total sown area of 29.54 million acres; in Burma 12.68 million acres for a total area of 19.13 million acres and in Madras 11.05 million acres for an area of 37.53 million acres.

Of the other soils, we may take note of the 'red soils' of east Bombay, east Hyderabad, the Central Provinces, the crystalline tracts occurring in Madras, Mysore, south

¹Report, p.72.

Orissa, Chota Nagpur, southern Bengal, Bundelkhand, North Western Provinces, north Baroda, and Rajputana, where under irrigation, varieties of good crops can be grown.

Next in importance to the *red soils* come the 'laterite soils' found in the plantations of the Nilgiris, Bengal and Assam. They yield plantation crops like tea and coffee, which have an extensive home and export market.

So far as the production of food stuffs go, 'the black cotton soils' of the Deccan trap and parts of Madras are of no significance.

Though agriculture is, in India, more 'a mode of living' than a profession and food crops are grown everywhere in the country attempts have been made to commercialise agriculture to a certain extent in some parts of the sub-continent, as in the Punjab and Bihar and Orissa.

The following table shows the position of food crops in the agricultural economy of the various provinces of the country.

Areas under food crops and their relation to the total area sown in the various parts of India are clearly indicated in the table given below.

**Area under Food Crops in relation to Total Area
sown in 1934-35. (In acres).**

Provinces	Food-grains	Food-crops	
			Total area sown
Ajmer-Merwara	367,183	10,751	446,133
Assam	5,099,385	..	6,712,052
Bengal	22,382,400	244,500	27,921,200
Bihar & Orissa	24,932,700	1,002,400	29,547,400
Bombay	24,200,348	6,371	34,123,958
Burma	14,692,070	14,889	19,134,045
C. P. and Berar	20,519,540	3,557	27,508,593
Madras	27,863,829	63,209	37,539,335
The Punjab	20,661,165	217,356	29,833,330
United Provinces	37,483,389	206,837	43,427,741

This short survey of the way in which our total available land resources are distributed between food and non-food crops, clearly indicates the limitation of our land resources to support a dynamic population within a competitive system of economic adjustments.

A competitive market in the agricultural products, has put two kinds of limitations on the proper exploitation of our land-resources: firstly, it has demarcated the land resources which are to be exploited keeping the agrarian cost-structure in relative adjustment with the movement of agricultural prices in the market; and secondly, by forcing the individualist small farmers of the country into the circle of exchange to balance their standard of life, it has driven them to grow food-stuffs on their little farms irrespective of the capacity of their farms and the suitability of their regions for the production of such crops. In other words, it has meant a double wastage of our natural productive resources: the necessity of keeping the agrarian cost-structure '**competitive**' has created in our country vast zones of *fallow* land and land classified as *culturable waste other than fallow*, while the urgency of equating his "standard of subsistence" with conditions in a highly competitive circle of exchange, has driven the Indian farmer to regard agriculture not as a branch of economic activity which he must pursue to claim his portion of reward in the national circle of exchange, but as an end in itself,—or "as a mode of living". In such a background, agriculture can only be of the subsistence type; in a subsistence type of production one cannot expect either the efficiency or the specialisation of agricultural production that one comes across in a country where agriculture is organised to meet the requirements of a competitive market as in the United States of America or the Argentine Republics or Australia or even Russia. Subsistence type of production has no eye for the colossal waste it creates in the misdirection of the natural resources of the country by attempting to grow food crops on all soils which can be better exploited under specialised agricultural production. Nor can we rightly shift the blame for the colossal waste of natural resources in India on the social and religious institutions of the country. Few thinking economists would agree with Dr. Anstey that, in India, "religion excludes the economic motive, and replaces it by the ideas of custom and status."¹

As long as human nature remains the same all over the world, it is economic conditions which determine the

¹Economic Development of India, p.46.

economic civilisation of a region and not religious or social conditions—so long as economic conditions are taken to be the means of gratifying the elemental impulses of man. The subsistence type of agricultural production is thus not the result of any social or religious system but the consequence of the interplay of the forces of a competitive market on a corporate system of economic adjustments.

In such an "economic conjuncture" it would be difficult indeed to get the right crops on the right soil. Nor are the technical conditions conducive to such a reorganisation of agricultural production; since no farmer can arbitrarily determine what crops he shall grow on his small bit of land—for, as the Royal Commission on Agriculture has so often pointed out, "India is still pre-eminently the land of the small holder."¹ And in such a background, every farmer has to grow the same crops which his neighbours grow; firstly because, the size of his farm renders enclosure 'uneconomic', and secondly because, a crop which was not harvested with all the other local crops would cause serious labour trouble to the cultivator who attempted at "crop-specialisation" on his small patch of land, and finally because, lack of proper marketing facilities and transport conveniences in the majority of the rural zones has driven the agriculturist to grow crops which can either be consumed at home by the family or sold in the local market.

It is needless to stress the importance of getting the right soil to grow the right crop instead of raising crops which year in the year out exhaust the fertility of the soil in which they are grown, thus bringing about a gross maladministration of the land resources of the country. There can be no doubt that if India were to sponsor an integral scheme of land-conservation as Italy has done, she could raise all the food-requirements of her population on one-fourth of the land she is at present exploiting and release a major portion of her land-resources for the production of commercial crops and raw materials for her national industries.

As it is, the subsistence type of agrarian production has seriously hampered proper exploitation of our natural resources, so that not only are people not receiving enough

¹Report, p.12.

food to keep them in an efficient condition, but we have also started importing rice from Burma!

But the agricultural problems of India are not incapable of solution. In this connection we would do well to remember Prof. Robbins' words of wisdom: "If we were to judge by the verdict of public opinion," he wrote eight years ago, "...we would be disposed to interpret the whole thing in terms which were highly particular. In this country farming is inefficient. In that country the merchants are grasping. Here the credit facilities are deficient. There a marketing organisation has pursued a reckless and ill-considered policy. In one country peasant farming has proved inadequate. In another lack of peasantry has been the ruin of agriculture. And, no doubt, since something, if it is only the weather, is nearly always wrong everywhere, there is *something* in nearly all these local explanations. There is always room for improvement anywhere."¹ What is wrong with the production of subsistence in India is the basis of economic adjustment which has attempted to equate a subsistence type of rural production with a competitive agrarian market. Can we improve the situation? It is obvious that as long as the agriculturist is forced to seek economic adjustment between his income and expenditure in a competitive system, we cannot increase or even 'conserve' our food supply by growing the right crops on the right soil, since such a process would be *uneconomic* from the competitive standards of economic judgment.

Another great problem which any scheme of food-conservation has to solve in the country is the problem of soil-exhaustion. The Indian soils are generally deficient in "plant food materials," especially nitrogen. Intensive and extensive soil researches conducted at Pusa and Cawnpore have revealed the colossal loss of nitrogen which the Indian soils suffer as a result of heavy rainfall. At Pusa, "losses of 60 to 150 lbs. of nitric nitrogen per acre" were recorded, and at Nagpur the loss of nitric nitrogen per acre caused by drainage by rainfall was 160 lbs. However, "further research in this direction is urgently required," wrote the Royal Commission nearly fifteen years ago, "to determine with greater precision the

¹Tariffs, the Case Examined, pp.149-50.

causes involved and to enable practical measures for accelerating the natural recuperative processes under varying conditions of soil and rainfall to be devised."¹ What should the agriculturist do to conserve the soil of his land? As late as 1937, over a decade after the Royal Commission pointed out the gravity of the situation, the Official Chronicler has only to say, "Further progress was made with the genetical survey of the sugar cane soils of the Bombay Deccan and the rice soils of the Central Provinces."² Nor can the incentive to conserve the agrarian resources of the country come from the agriculturist so long as he is threatened incessantly by the spectre of competitive adjustment through exchange between his income and expenditure.

Fifthly food supply of the country can be increased, "by improving the arts of agricultural production—introducing better cultural or breeding practices, improving breeds and varieties etc."

There is no gainsaying the fact that there is an urgent need in India for a complete overhaul of the machinery of agricultural production. From the sowing of seeds to the reaping of the harvest, the Indian agriculturist uses implements and methods which are hopelessly inefficient to secure for him a good price margin in a competitive agrarian market. The result is the productivity of every unit of agricultural production is very low as the table shown under reveals.³

Yield per acre in 1931-32 in India and other countries. (In lbs.).

Countries	Rice	Wheat.
Italy	4,601	1,241
Japan	2,767	1,508
Egypt	2,356	1,688
U. S. A.	2,112	973
United Kingdom	..	1,812
Germany	..	1,740
India	1,357	652

(Taken from Sir M. Visvesvaraya's Planned Economy for India, p. 23).

¹Report, p.77.

²India in 1934-35, p.10.

³Planned Economy of India, p.23.

Can this state of affairs be improved by the introduction of new cultural methods, breeding practices or of improved varieties?

"There are three methods", says the Royal Commission on Agriculture, "of obtaining varieties which are superior to those ordinarily grown either in respect of yield, quality or suitability to special conditions of environment. These are selection, hybridisation, and acclimatisation.....Of these two methods, selection and hybridisation, there can be no doubt that selection offers the readiest means of effecting improvement in Indian conditions and it is by this method that the greatest success of the agricultural departments, except with regard to wheat and sugarcane, have been obtained."¹

Regarding the average yield per acre, there is no need to be excessively pessimistic. As for rice, though we read, "the normal yield per acre of cleaned rice in India varies from 648 lbs. to 1580 lbs. which compares very unfavourably with Japan and Egypt where it is between 2352 and 2464 lbs." we are assured by the same authority, of wheat, "on the land liberally manured and irrigated, yields from 1500 to 1600 lbs. per acre have been obtained."²

The report on the "selection" method of improving the food crops is hardly discouraging: "schemes of research on rice...were in progress in all the important rice-growing provinces. In Burma...progress was sustained in the production and dissemination of new strains of paddy.... Three pure strains of 'Emata'...are now being widely cultivated in Lower Burma...In Bihar and Orissa attempts to break the 'dormancy' in the seed of several varieties of paddy by means of chemical treatment met with some success....the Nagina Rice Research Station in the United Provinces....turned out some very valuable early paddies....all of which are gaining marked popularity in the areas to which they are suited."³ Nor is the report

¹Report, p.97.

²Handbook of Commercial Information, pp.181-93.

³India in 1934-35, p.3.

about wheat discouraging. "In the Punjab," we read, "the established Punjab 8A lost its pre-eminence to a new species (C 518) and many thousands of acres in the province have already been sown with the latter."¹ Similar is the case with sugarcane—"the acreage under improved crops being 2.45 millions or 71 per cent of the whole, as against 69 per cent in 1933-34, 56 per cent in 1932-33 and 39 per cent in 1931-32."² But agrarian production in five hundred thousand rural zones of the country is very little influenced by these researches and experiments. The above information only serves to emphasise what an immense field there is in this country for crop-improvement and research. It is also obvious that the average small farmer of the country cannot have the benefit of all this research and improvement as long as the administration of his resources has to take place within a competitive system. And as long as he has to adjust his cost-structure to price-movements in the agrarian markets, he cannot undertake any experiment which would inflate his costs and render his productive processes "inefficient."

"There is a close relation," we are assured, "between nutrition problems and agricultural practice and conditions. The food value of crops from the deficiency disease aspect; the necessity of supplementing a staple food diet by the growth or importation of food stuffs containing the nutrient substances which the staple food lacks; the resulting necessity for cheap transport: all these are questions in which nutrition and agricultural research are inseparably linked."³

While the problem of cheap transport is relegated to a separate portion of this book, we are here concerned only with the nutritive value of the food crops now grown in this country and the possibility of growing crops with better nutritive value.

Intensive research conducted by Col. McCay in the good old days of the pre-Royal Commission epoch and by Col. McCarrison at Coonoor have revealed the hollowness of the claims of rice for a place among nutritive food crops.

¹India in 1934-35, p.4.

²Ibid, p.6.

³Report of the Royal Commission on Agriculture, p.493.

Col. McCay's investigations revealed that inclusion of wheat in gradually increasing proportion in the diet was associated with better health and efficiency as is seen among the populations of the Punjab and the United Provinces. His investigations further revealed that in tracts where rice was the staple food, absorption of protein was delayed because of the quantity of rice which a rice-diet drove people to consume. The best diet according to him was rice, dhal and wheat with occasional additions of fish or meat.

Such a standardised diet is impossible in this country since religion forbids certain classes of the population to participate in a non-vegetarian diet. As those who have conducted nutritive research in more recent times have not been slow to admit, "Physique, habits of life and other factors are so variable in different areas that no one scale of energy requirements and co-efficients could be entirely suitable for application throughout the country."¹ Nor is it impossible to plan a purely vegetarian diet which would be as 'efficient' in energy requirements and co-efficients as a mixed or non-vegetarian diet. In fact the Health Bulletin issued by the Nutritive Research Laboratories at Coonoor gives the instance of a well balanced diet as under.

A well balanced diet.²

	Ozs.
Raw milled rice	10
Cambu	5
Milk	8
Pulses	
Dhal 1 oz.	
Black gram 2 oz.	3
Non-leafy vegetables	6
Leafy vegetables	4
Gingelly Oil	2
Fruits	2

There is no doubt that it is a calamity that rice should have come to be the national staple diet of India; but the greater calamity is that poverty prevents the greater portion of the population from adequately supple-

¹Health Bulletin, 1938, p.3.

²For fuller details, see Health Bulletin p.14.

menting the rice diet so that their daily caloric requirements of 2600 calories per diem may be adequately supplied by the food that they consume.¹

Nutrition requirements of the population would necessitate a complete overhaul of the production programme of rural areas, in which the rice crop has a crowning position. For instance, in 1934-35, of a total net area of 226.98 million acres sown, rice alone occupied 79.52 million acres and during the same year, we imported from other countries 282 thousand tons of rice and 112 thousand tons of paddy, and from Burma, 1,987,000 tons of rice and 222,000 tons of paddy.²

Compared to rice, wheat occupied 25.65 million acres of land in 1934-35. The following table indicates the extent to which rice and wheat predominate the country's rural production-scheme.

**Food-supply of India
(In thousand tons).**

Years	Rice (cleaned)		Production.	Wheat Exports.
	Production.	Imports.		
1933-34	30,907	1,877	9,370	2
1934-35	30,238	2,594	9,729	11
1935-36	28,211	1,391	9,434	13
1936-37	32,549	1,419	9,752	235
1937-38	31,159	1,198	10,785	460

Except in Bihar, Orissa, northern parts of the Central Provinces, the United Provinces, the Punjab and northern Bombay, rice is the staple food of the people and even in the above parts of the country, rice is not entirely excluded from the diet. The need for a better distribution of crops over our land resources becomes at once imperative. More of our land resources will have to be devoted to the culture of pulses, vegetables like potato and onions and both leafy and non-leafy vegetables ordinarily used in the Indian diet in urban areas, oil-seeds and fruits. Such a redistribution of our land resources implies not only the extension of irrigation facilities but also the existence of transport and storage facilities for the preservation and

¹"We shall not be very far out if we reckon the minimum caloric needs of an average Indian, engaged in ordinary easy-going agricultural or coolie work as 2,500—2,600 calories per diem."
—Health Bulletin, p.2.

²India in 1934-35, p.2.

conservation of perishable articles of food. In the absence of such facilities, the market for the perishable articles of diet can only be severely circumscribed; and in such a conjuncture there is very little incentive for the agriculturist to devote even a small portion of his land resources for the production of nutritive food crops. As long as the spectre of marginal adjustment in a competitive market continues to cast its grim shadow on the threshold of his humble farm, nothing can induce him to change over from the production of staple food-crops to the cultivation of nutritive food stuffs. And as long as the rural population do not attempt to administer their natural resources to their lasting advantage, there can be neither efficiency in production nor adequacy in consumption. This is the vicious circle in which India is inextricably involved regarding the problem of an efficient administration of the land resources of the country.

Thus there are two major problems casting their vicious shadow over the relationship between population and subsistence in the country: the first is the technical problem of the dwindling farm and the second, the economic problem of liquidating the rural cost-structure in a competitive circle of exchange. These problems are so immense that one can declaim without fear of any effective contradiction that fragmentation of agrarian holdings and competitive economy have been the authors of India's distress for over a century: the first has destroyed the economic integrity of the Indian farmer while the second has undermined the economic solidarity of the country. In this fearful background, each child that is born to claim its portion of ancestral heritage assumes the size of a Leviathan sent to devour the entire country.

What is the remedy?

Increasing food production under existing rural conditions in India is an impossible adventure; the size of the average farm would combat scientific farming while the problem of marketing agrarian produce would only precipitate a crisis in the rural zones.

The second alternative of regulating the volume of population through Neo-Malthusian methods will be ineffective unless the volume of population is rendered so small that the general standard of life automatically rises.

DISTRIBUTION OF PRODUCTION OF FOOD GRAINS IN DIFFERENT PROVINCES (In acres). 1934-35

Provinces.	Rice	Wheat	Barley	Jowar	Bajra	Ragi	Maize	Gram
Ajmer-Merwara	1,113	29,552	53,895	86,216	27,307	187	70,311	42,916
Assam	4,857,567							
Bengal	20,739,700	154,700	91,300	6,200	2,100	4,800	75,200	206,900
Bihar & Orissa	13,734,000	1,197,000	1,473,000	87,700	68,200	631,800	1,654,200	1,457,300
Bombay	3,176,788	2,808,856	34,018	8,392,892	4,818,527	648,060	176,847	1,022,165
Burma	12,687,717	47,724		622,322			240,185	260,808
C.P. and Berar	5,631,074	3,626,091	14,032	4,333,766	92,563	11,834	155,544	1,237,925
The Punjab	955,535	9,037,924	612,039	843,189	3,042,761	21,191	1,135,650	3,621,297
United Provinces	6,558,796	7,697,853	4,167,387	2,240,862	2,158,876	260,322	2,130,909	5,509,904
Madras	11,055,587	18,276	2,886	5,142,734	2,697,189	2,156,752	69,094	115,390

As a rule an agricultural country can only maintain a lower density of population than an industrial power. Reduction of population in India to the level of the density of the progressive agrarian zones of the world is not possible except by race suicide.

Another solution to the problem of population in India has been suggested: the transfer of population from regions of higher density to regions of relatively lower density. "Deliberate transfer of population on a large scale has taken place in South East Europe since the war," suggested Fawcett before the International Population Union, "and may be copied elsewhere."¹ "A close investigation," wrote Sir M. Visvesvaraya in his *Planned Economy for India*, "may suggest the desirability of redistributing the population in particular regions by adjusting the density according to the sustaining capacity of each."²

Such transfers of population are possible in countries where the density of population over different regions varies considerably; so that there are regions which can support a higher density of population without seriously impairing their productivity while there are also regions existing which can lose a portion of their population without damaging their productive efficiency. Such a state of affairs is noticeable in new countries or in old countries where industrialisation has progressed at the cost of agriculture; but not in old countries like India where ruralisation has proceeded to the fullest extent and the country has accumulated a population which has gone on increasing from decade to decade, while rural congestion and the rigours of competitive adjustment have kept rural productivity at the lowest limit.

Our earlier study of the density of population has shown us that of the Indian provinces, Bengal, Bihar and Orissa, Burma, Delhi, Madras and the United Provinces are more thickly populated than Italy, Switzerland, Russia, Spain, Poland, Norway, Greater Germany, France and Denmark.

The size and population of our provinces and the magnitude of adjusting the density of population by inter-

¹Paper on some factors on Population Density; Problems of Population, p.196.

²Popular Edition, p.11.

regional transfer of population become at once obvious to us when we note that Assam is nearly four times as big as Belgium in area and has nearly as many people living in it as Belgium itself; Bengal is as big as England; Burma, the Punjab, the United Provinces, Madras, Bihar and Orissa are all bigger than the United Kingdom in area, while the United Provinces, Madras, and Bihar and Orissa have each as large a population as the United Kingdom itself. Of the states which make up Indian India, Hyderabad is six times as large as Belgium in area and has twice its population and Mysore is nearly double the size of Switzerland with a population two-and-a-half times as large as the population of Norway.

Of the provinces with a lower density of population, none of them can support a heavier population than they are doing at present without seriously jeopardising the regional structure of economic relations. Among the provinces, Assam, Bombay, the Central Provinces, Berar, Coorg, North-west Frontier Province and Baluchistan have all a lower density of population than Bengal, Bihar and Orissa, Burma, Delhi, Madras and the United Provinces and parts of Baroda and Mysore. Is inter-regional transfer of population among these regions possible?

The only way population-density can be equalised with regional resources is by draining away population from moderate regions which have accumulated heavy populations to rich regions which have been only very sparsely populated. Such a transfer is possible only in a new country where virgin soil, capable of supporting vast populations, remains unexplored and new cities can be built and fresh economic horizons invoked—as in America, South American States, Australia and New Zealand. It is also possible to achieve such a readjustment of population in old countries where industrialisation has led to an excessive conglomeration of populations in urban areas as in England and Germany. But India is an old country with agriculture predominating its national economy; and in such a background there is no guarantee that areas with a lower density of population can readily absorb the populations transferred from highly congested regions without seriously damaging their economic structure.

Economically then, the solution of India's population problem by inter-regional transfer of population is im-

practicable. India, in general, is suffering from a high density of population from the standards set by even progressive agricultural zones of the world like the United States of America, Argentine Republics, Australia and Canada. Equalisation of population-density in a country like India assumes two essential conditions: cultural solidarity and economic stability or, more correctly, "standardisation of economic conditions", all over the country. In India, we are suffering from general distress from which possibly a small portion (of the 11 per cent of the total population) of the urban population may be comparatively immune.

In such a *conjuncture* what can be done to put the country on the road to economic solidarity?

India can only be saved from economic disaster by a surgical operation. There are only two alternatives before the country; either to liquidate her cultural and social structure to suit the dynamic needs of a competitive economic society or to face the subversion of the competitive system of economic adjustments.

Obviously, the economic problem of India is the problem of a country which has been forced into an economic framework which does not suit its cultural evolution. India had for ages solved her economic problems in a system of corporate economic adjustments. The imposition of competitive economy on such a country in the last century has only generated *general distress*; though it might have created here and there in the vast sub-continent small nuclei of prosperity in modernised distributing centres like Bombay, Madras, Calcutta, Karachi and Rangoon.

When we diagnose the economic malady from which our country is ailing to have been caused by the imposition on the country, of an economic *system* which is unsuited to the proper exploitation of our productive resources, it is high time that we pleaded for its abandonment. The only other alternative before the country is too terrible to contemplate: a social upheaval born of prolonged economic "wretchedness"!

In such a background one would be intrigued to read from Sir M. Visvesvaraya that "the Indian problem is fundamentally industrial and should be solved by the same methods as have proved efficacious in countries like

the United States of America, Japan and Canada and latterly also with such startling success in Soviet Russia."¹ And the same author goes on to declaim, "from what has been said before, intensive industrial development is bound to prove the most efficacious cure for the present-day ills of India's enormous population."² For one thing, India presents no comparison with any of the countries enumerated in any respect whatsoever; nor are the problems of India similar to the problems which economic "reconstructionists" were called upon to solve in the other countries of the world. India's economic problems are peculiarly her own and they cannot be solved by the "same methods", which have obtained in other countries. That is the mistake which the "technical reconstructionists" of the last century committed in India and the whole country is paying for their folly with the sufferings of the three hundred and sixty million people to this very day: the earlier reconstructionists failed to appreciate the real economic problems of the country just as their modern counterparts are doing in our own age. Left to themselves these enthusiasts would only foist on the unfortunate nation another epoch of *technical progress* which would only further confound the problem of economic adjustment in the country. They fail to realise that industrialisation, like all economic endeavours, is no end in itself but only a means to an end—whatever that end may be; and that even if we did succeed in setting up vast industrial zones in the country we would still be far from solving the problem of general distress—as long as the major problem of equating our industrial cost-structure with conditions in the international market for secondary commodities remained unsolved; nor could we ignore the vast problem of liquidating the gigantic problem of rural exodus which such a "reconstruction" would generate.

A survey of economic conditions would at once reveal that the present muddle in the country is caused by the evolution of an *unco-ordinated* administration of our productive resources, as a consequence of the *technical evolution* of the past century of "progress". India cannot have economic solidarity as long as she has to administer

¹Planned Economy for India, p.234.

²opt. cit., p.246.

her productive resources within the ambit of such a system of adjustments. The social and intellectual civilisations of the country are not responsible for such a state of affairs. Even an agricultural expert imported from Rothamsted could not farm the Indian agriculturist's small patch of land at a profit in a competitive circle of exchange. Even if we did completely overhaul the cultural foundations of the country to suit the free movements of a competitive economic system, we should still be unable to solve the problem of a competitive market, and we would only be rushing the country to inexorable economic disaster—as in the case of even a progressive country like the United States of America, let alone England.

The only sensible way of rebuilding the economic fabric of the country seems to be in the restitution of economic solidarity to the rural zones which has been badly damaged by the impact of a competitive system of economic adjustments. Such a programme is possible only in a plan of nation-wide conservation of productive resources. Such a plan would also imply "regionalisation" of the disposal of factors of production and a closer co-ordination among all the branches of economic activity, aimed more at regional solidarity, than at technical efficiency. It would also imply a severe regulation of "individualist" production as also of "competitive" disposal of resources in a free market—the two great factors of economic disintegration in India. We must realise that we cannot rebuild our economic life as long as we do not restore confidence to the agriculturist in his profession which has been destroyed by the ravages of a competitive rural market, and also that we cannot resurrect the spirit of rural progress as long as the system of competitive adjustment continues to cast its grim shadow over our rural economy.

It is because of the false foundations of its "economic" evolution in the 19th century, that India has landed herself in the economic muddle of the present century; and we must seek deliverance from the present situation only through economic readjustment. We must strain every nerve to stabilise our "economic" system—not through the instrumentality of a second *technical evolution* which enthusiasts of industrial reconstruction like Sir M. Vis-

vesvaraya would inaugurate but by the administration of our entire national resources directed, not towards the expansion of our commercial frontiers, but towards the establishment of economic security and social solidarity in the country.

Such a plan can hardly have the flare of a dynamic programme of industrial and agrarian reconstruction of the country propounded by "enthusiasts" of national reconstruction; our attempt is more towards the ushering in of an economic renaissance than towards the propagation of a technical revolution.

An economic plan which lays pretence to solve the population problem of India must first attempt to dissolve the vast regions of economic distress in the country, before it attempts to create new zones of "progress". And in such a plan, we cannot effectively dissolve the zones of distress unless we rescue the three hundred and sixty million people from the competitive circle of exchange which has been mainly responsible, if the foregoing analysis is correct, for the existence of economic distress in India.

It is obvious from the above discussion that we cannot improve the food position of the country as long as agrarian production is left to seek adjustment in a competitive market. Nor can either extensive or intensive industrialisation solve the problem of stabilising the standard of life of the population of India, as long as the new industries started are also, in their turn, exposed to the forces of competitive adjustment in a free market. Protection to national industries, in a competitive conjuncture, would also be useless to drain away any appreciable portion of the present rural population, as we shall examine in detail in a later portion of the book.

Logically we have only one method of meeting the problem of our huge population, viz., by restoring economic solidarity to the new "economic zones" which should be established, if we are to escape from the anarchy of *laissez faire* which has reduced us to our present condition of helplessness. "Economic solidarity" cannot be achieved in a regime of what Sir M. Visvesvaraya is pleased to call "individual initiative".¹ It is *individual initiative* that has

¹See *Planned Economy*, p.7.

given India the problem of the "deflating farm"; it is *individual initiative* that has foisted on the rural community a crushing burden of indebtedness; it is *individual initiative* that has created a "frozen" industrial structure in the country which has been unable to solve the problems of its own cost-structure let alone the wider problem of rural congestion which every thinker hoped it would solve since the days of the first Famine Commission.

It is high time then, that we severely regulated this *individual initiative* in the general interests of the community at large. And till we achieve this feat of regimenting *individual initiative*, though Sir M. Visvesvaraya is against it, dissolution of the vast zones of distress existing in the country to-day would be utterly impossible.¹

Nor is it too late to attempt to, as Wicksteed would put it, "harness individualism to the car of collectivism."² In attempting to solve the problem of population in India, we must at once realise that we cannot conserve our huge population without conserving our land resources. The cry of overpopulation in India is a cry of the defeatists and the faint-hearted; and the remedy of conserving the population by birth-control is a desperate betrayal that our country, with all her vast natural resources, is bankrupt and incapable of maintaining even the existing population at a fair level of comfort.

Can we not take a lesson from Italy of which Mussolini used to speak with so much pride: "We are starved of land because we are prolific and we intend to remain prolific. We must therefore utilise the land; modern technical methods of agriculture can accomplish any miracle, but above all, it is our Italian race which has at all times

¹Sir M. Visvesvaraya, while expressing admiration for the "startling success" which Soviet Russia has achieved in economic "progress" and pleading for the adoption of similar methods for India, issues a caution that "the Indian plan should avoid communistic tendencies; its basic policy should be to encourage collective effort without interfering with individual initiative. The developments should be more on the lines followed in the United States of America and in Turkey." p.7. Is it an ideological fright that has landed the learned author in this strange position of formulating a plan without any provision for a "centralised disposal of factors of production" (Prof. Robbins)? One wonders

²The Commonsense of Political Economy, (Prof. Robbins' Edition) p.398.

been capable of achieving miracles and which appears to me always, when I meditate upon it, as a unique marvel in the history of mankind."?

What can we "achieve" in India?

In India, if we are to solve the problem of our population successfully, we must increase the productivity of every sod of earth not only by intensive cultivation of every acre at present available for agriculture but also by a thorough programme of land-reclamation through irrigation and draining wherever necessary. We must increase food production, and under more scientific and intensive cultivation, not only will we be able to grow all the food that the country requires in twenty per cent of the land we are devoting to the production of food stuffs to-day, but we will be also in a position to increase the nutrient value of the crops we can grow.

In 1931, we learn that Italy was able to produce 4,601 lbs. of rice per acre, while we were content to raise only 1,357 lbs. per acre; similarly with regard to wheat, while Italy was able to get 1241 lbs. per acre in the same period, we were only content to produce 652 lbs. Even England was able to harvest 1,812 lbs. of wheat per acre in 1931-32.¹ Japan and Egypt also have fared far better than India in the production of rice harvesting between 2,353 and 2,767 lbs. per acre. Nor is the production capacity of Indian land with regard to rice uniform throughout the country. It ranges from 648 lbs. to 1,580 lbs. per acre.²

It is obvious that we cannot raise the productivity of our land as long as *individualist* cultivation and competitive agrarian market impose limitations on the proper administration of our productive resources.

Nor can the rural cultivator switch on to the production of food stuffs of greater nutritive value under a competitive system of rural production as we have examined earlier in this chapter. In short, there can be no conservation of our agrarian or food resources under a competitive system of economic adjustments, and with every year that passes and every child that is born into the country, the shadow of economic attrition goes on deepening over the land.

¹Quoted by Sir M. Visvesvaraya, in *Planned Economy for India*, p.23.

²Handbook of Commercial Information, 1937, p.181.

It must be categorically asserted at this stage that we cannot solve the problem of our population or of their standards of life unless we reconstruct the entire structure of our rural civilisation so that the rural population of India will be in a position to know "how to make rational use of the technical methods which science and practice, each in its own way, have for some time been counselling, revealing increasingly close relation between improvement in crop cultivation, increase in numbers of livestock (the greatest fertilizers of the soil), the careful use of selected seed and fertilizers on the one hand and progress....on the other. The perfecting of the means by which the farmer can, with increasing efficiency, face the enemies of his crops, sometimes with complete success, always limiting the damage."

All this implies the creation of what the Royal Commission called "an environment" in rural India for the proper administration of the country's resources. Such an environment would include not only the extension of irrigation facilities and other technical factors propitious for efficient exploitation of our natural resources, but also the elimination of a rural market vulnerable to fluctuations in the international agrarian markets. We must set up "closed economic zones" where adjustments between production and consumption could easily be attained, thus rendering each "zone" self-sufficient so far as the day to day requirements of the region are concerned. Thus each "zone" will contain a regional co-ordinating agency, whose function would be not only to conserve and administer the economic life of the zone, but also to plan the production of the *specialities* of the region which are to be exchanged for the products of the other regions which are essential but unobtainable in the region concerned. Such a plan would first and foremost imply collective agricultural production, and, the dissolution of *individualist* exploitation of land is the *sine qua non* of the plan.

In order to maintain, what has come to be familiarly known in Indian economic literature as "vocational balance" in each of the zones, it would be essential to start small units of 'regional industries' on modern lines to supplement the agriculturist's income; production in the industrial units being planned with a view to the pace of regional consumption, except in the special industries of

the zone. This would solve the problem of the "seasonal" labour market as well as the problem of 'urbanising' the vast rural population of the country. The basic idea of the plan is to take the industries to labour, instead of dragging labour, which in this country is essentially agricultural, to urban centres and generating the distressing problems of urban congestion and regulation of public health and morals which have disgraced our own industrial towns like Bombay and Ahmedabad.

The population of our country is instinctively rural, and we must preserve them so if we desire to conserve all that is best in our ancient civilisation; for, as it has often been said, "the land and the race are inseparable and through the land the history of the race is made and the race dominates and develops and fertilizes the land." There is no need therefore to reproduce the social and economic horrors of industrial urbanisation prevalent among the Western Powers in our own land. That is why we shall have to fight any movement towards excessive centralisation of the industrial structure of the country. The functional and structural disorders of the units of the Indian cotton and sugar industries and the enormous growth of labour disputes and the ravages of special urban diseases enumerated earlier in the chapter should go to prove the demerits of centralised industrialisation. The country badly needs stability for its industrial structure before it can solve, in any appreciable degree, the problem of population. Only decentralised industrial system can assure solidarity for the industrial structure of India; and such decentralisation implies not only "regionalisation" of the instruments of industrial production but also elimination of profit in a competitive market as an incentive to production. It is absolutely essential that we attacked the problem of conservation from two angles: firstly by rescuing our rural structure of production from the instabilities of a free and competitive international market for primary products and secondly, by reclaiming our industrial structure from the clutches of a closely guarded *syndicalist* control and delivering it to the people.

Only such a plan can restore balance to the economic life of the country. It is true that such a plan would be resented by a section of the community whom it may affect; but we have consolation from Professor Laski that

"changes in the habits of society are always resented by those whom they affect." Regionalisation of the instruments of production and exchange, we must be frank to admit, may not result in the most "efficient" administration of resources—if *efficiency* is connoted as being synonymous with the capacity of a regional economic system to synchronise itself with the progressive shifts and changes of a dynamic, competitive economic society. In India we do not want *efficiency* as badly as we need *stability*; and there is no doubt that the plan, if it will not secure efficiency, will at least guarantee stability. Under the plan envisaged in broad outlines, the country will, if we may use Laskian language, "be totally richer than at present, even though its appearance does not show the great peaks of fortune now possible....It will be able to draw upon a larger area of inventiveness. It will have fewer disastrous casualties than now. It will have a higher standard of honour than a society built upon the motive of profit-making. It will have found the means to make men share not less in the gain than in the toil of living."¹

¹H. J. Laski, *A Grammar of Politics*, pp.437-38.

CHAPTER III

SOCIAL AND CULTURAL RELATIONS.

"We must regard industrial and commercial life," says Wicksteed, "not as a separate and detached region of activity, but as an organic part of our whole personal and social life; and we shall find the clue to the conduct of men in their commercial relations, not in the first instance amongst those characteristics wherein our pursuit of industrial objects differs from our pursuit of pleasure or of learning, or our efforts for some political and social ideal, but rather amongst those underlying principles of conduct and selection wherein they all resemble each other; for only so we can find the organic place of industry in our conception of life as a whole."¹

To a great extent, then, economic civilisation is influenced by the stage of cultural progress which a country has reached, so far as economic life continues to be a department—perhaps an essential department—of the general scheme of life. Thus economic relations cannot be isolated from their non-economic, social or political or religious, relationships, all of which go to give a regional civilisation its personality and power.

How are these economic relations influenced by non-economic relations?

"Economic relations", says Wicksteed, "constitute a machinery by which men devote their energies to the immediate accomplishment of each other's purposes in order to secure the ultimate accomplishment of their own, irrespective of what those purposes of their own may be, and therefore irrespective of the egoistic or altruistic nature of the motives which dictate them and which stimulate efforts to accomplish them."²

But the nature of these economic relations and the rapidity or rigidity with which adjustments take place between the individual and the entire economic structure in which he is placed are not completely independent of the social, political and religious institutions which guide, what Marshall was fond of calling, "the ordinary business of life."

¹Commonsense of Political Economy, Prof. Robbins' Edition, p.3.

²Commonsense of Political Economy, p.4.

"For", says Marshall, "man's character has been moulded by his every-day work, and the material resources which he thereby procures, more than by any other influence unless it be that of his religious ideals; and the two great forming agencies of the world's history have been the religious and the economic...religious and economic influences have nowhere been displaced from the front rank even for a time; and they have nearly always been more important than all others put together."¹

In modern economic civilisations of the West, though religion has played a rather minor role, it is doubtless that, in general, economic relations cannot exist apart from their social and cultural context. "It is by no means necessary, or even normal," Wicksteed goes on to write, "for the economic relation to exist in isolation. Other relations combine with it and intrude upon what is usually regarded as its special domain; and it makes incursions into regions of activity where we should not at first expect it...In short the more we reflect upon all these matters, the more shall we convince ourselves that the motives actuating us in our dealings with our fellows are frequently, if not generally, far from being unmixed, and that economic and non-economic relations are perpetually intertwined."²

We must, therefore, realise that the economic system in any given region is only a co-ordinated part of the regional scheme of civilisation. That is how we must recognise the relativity of economic institutions and the enormous cultural friction which economic institutions which do not fit into the cultural scheme of a region generate. "The fundamental fact about society as a going concern," says Knight, "is that it is made up of individuals who are born and die and give place to others, and the fundamental fact about modern civilisation is that it is dependent upon the utilisation of three great accumulating funds of inheritance from the past, material goods and appliances, knowledge and skill, and morale. Besides the torch of life itself, the material wealth of the world, a technological system of vast and increasing intricacy and the habituations which fit men for social life must in some

¹Principles of Economics, p.1.

²Commonsense of Political Economy, pp.192-94.

manner be carried forward to new individuals born devoid of all these things as older individuals pass out. The existing order, with the institutions of the private family and private property (in self as well as goods), inheritance and bequest parental responsibility, affords one way for securing more or less tolerable results in grappling with this problem. They are not ideal, nor even good; but candid considerations of the difficulties of radical transformation, especially in view of our ignorance and disagreement as to what we want, suggest caution and humility in dealing with reconstruction proposals."¹

It is with this caution before us and an attitude of "humility" that we must approach the gigantic and ancient cultural structure of India in its relationship to any scheme of economic reconstruction that we may formulate for the country. As Hobhouse has declared, "there is always the influence of the society in which each man is born, the interaction between mind and mind and the shaping of individual opinion in a social standard, the modelling of each generation by the heavy hand of the past,"² which we cannot ignore in any comprehensive consideration of economic evolution in a particular region. The individual impulse guided by social tradition, and social tradition modelled by a co-ordination of individual impulses have their lasting influence on the formation and structure, not only of the moral, but also of the economic, scale of preference.

In India, for instance, no one can pretend that the caste-system and the joint-family system do not exert their influence either on the choice of an occupation or in the adjustment of labour dynamics to fluctuations in the labour market; or that they do not distort the administration of individual resources by affecting the structure of, what Wicksteed calls, "time preference ratios," which in their turn, influence the volume and course of savings and investments in the country. This is true of the majority of the five hundred thousand rural zones whatever may be the case of urban areas where the process of cultural disintegration has become almost chronic. The influence of the caste system on the individual's

¹Knight, *Risk, Uncertainty and Profit*, p.375.

²L. T. Hobhouse, *Morals in Evolution*, p.14.

scale of preferences can hardly be overstated. Scores of writers have been puzzled as to how the caste system originated; it is not within the province of this book to venture into the origin of the caste system. Whether the caste system originated in race discrimination or in the disintegration processes of economic and social functions as the Gita affirms, there is no denying of the fact that it has, in no small degree, exerted its influence on the structure of Indian society and also on the economic evolution of the country.

For instance, where it is virulent, the caste system lays down insurmountable barriers against a Brahmin usurping the social or economic functions of a Sudra, or a Sudra invading the cultural or social preserves of a Brahmin, and both transgressing into the economic or cultural functions of either a Vaisya or a Kshatriya. The vocational division of society inaugurated by the caste system is further disintegrated by the division of each caste into sub-castes and sects. Thus we come across in the country, the barbers' caste, the tailors' caste, the blacksmiths' caste, the hunters' caste and the fishermen's caste and several other such vocational groupings. Nor can any one who has made a special study of the evolution of caste in India pretend that the caste system in modern India is the same as that of the Vedic age. In modern times, the Brahmin stands at the head of the Hindu society only in an extremely unreal sense. Among the Brahmins themselves, there are further territorial groupings; in fact there are ten such groupings: five in the north known as the Goudas, and five in the south known as the Dravidas. The Brahmins of the Maharashtra, like the Brahmins in urban areas all over the country, have no occupational distribution; they follow liberal professions like, law, medicine, teaching and most important of all, Government service. Some Brahmin classes are landowners like the Nambudris of Malabar, the Havikas of Canara Districts, and the Brahmins of Orissa and Gujerat. In some cases, the Brahmins have become farmers as in the case of the Babhans of Bengal or the Tagas of the Punjab. Incidentally, we also come across in Indian social stratification, of Brahmin criminal classes like the Tagris on the Upper Jumna.

Of the Kshatriyas, the modern Indian society has only the Khatris. The Khatris are classified in three groups:

the Bharis, the Bhunjahis and the Sarins. And of the Vaisya communities, we have the Banias who have spread themselves all over North-West India, and Rajputana. The Vaisyas are split up into three territorial groupings of which the most prominent are the Aggarwals of the western part of Rajputana and the Oswais from eastern Rajputana. The pure Aggarwals number seventeen clans descended from as many Snake Maidens and there is also a half-clan known as the Gond. Among the Banias we also come across the Vaishnava Banias, the Jain Banias and also the Saiva or Maheshri Banias. The majority of the Banias are money lenders and some of them have transformed themselves, in modern times, into "industrialists" and "commercial magnates."

In the plains of Hindustan, the Kayasth is the Khatri substitute. The present stronghold of the Kayasth class is lower Bengal.

In this subcontinent of ours there are also castes created by slavery and conquest like the Cheruman of Malabar and the Holeyas of Mysore. Similarly out of the Indian Feudal Epoch, arose the chivalrous castes like the Palayagars, the Maravars, the Bedars of the Karnatak, the Boyas of the Andhra, the Khandaits of the Maharashtra and the Rawtias of Chota Nagpur. In addition to all these we come across low castes like the Kolis of the Punjab, the Bhatwals of the Chembur State, the Meghs of Sialkot, the Ghasias of the Central Provinces; and occupational castes like the Barara, Chamra, Dhogri, Singaria, Tankiwala, Jhingar, Bansia and Naiyadis of Malabar.

The immense complexity of the caste system is brought home when it is stressed that, over vast rural regions of India, the separatist tendency of the castes is far stronger, due to the severely endogamous nature of social relationships and cultural isolationism.

Obviously in a social system so rigidly and minutely stratified, a free and competitive economic system can only have a stifled existence. Consequently, "social tradition" in our country has enthroned itself in the seat of power, regulating the course of economic forces, where they are not powerful enough to overcome the stubbornness of social tradition, and setting in motion currents and cross-currents which affect the smooth adjustment of economic relations.

Similarly, the influence of the caste system and the joint-family system on the administration of the individual's resources cannot be easily ignored. For instance, due to the existence of separationist tendency in the inter-caste relationship, the emergence of anything like an industrial or commercial partnership between two castes is rendered very difficult. Thus, in spite of the operation of disintegrating forces on the caste and the joint-family systems in the "modernised" zones of the country, the family and the caste ties in India are far stronger than elsewhere. Considerations of family affection, for instance, or the distress of a member of a hitherto integrated family, have a serious effect on the administration of the resources of another member of the same family. Consequently, the composition of the scale of preferences of an average Indian is quite different from that of a Westerner. This naturally has a serious effect on the volume of saving as it has also a tremendous influence on the standard of life which any individual can aspire to in our country.

Thus an earning member of an average family, even in the great urban areas of the country like Bombay, Calcutta, Madras and Karachi, has to administer his resources in a vast network of moral and social obligations to the family, which must have a devastating effect on the structure of time-preference ratios. The average Indian has to administer his resources, under the stress of social conditions over a far wider area than an average Englishman or American. His time preference ratio—that is whether he would prefer his present command of resources to his future command of resources or vice versa—would be in favour of the present. The result is in India we do not come across a huge volume of investment, whether industrial or private, in the entire country. And another serious feature of indebtedness in India is that the volume of the debt has no relation to the capacity of the debtor but to the joint resources of the family to which he belongs. Thus the Royal Commission complains: "A serious obstacle to the clearance of indebtedness is the existence of a large volume of inherited indebtedness,"¹ for which the social tradition which makes the debts of

¹Report, p.440.

an earlier generation *morally* binding on the succeeding generation is plainly responsible. In such an atmosphere no one can expect any appreciable degree of democratisation of industrial ownership or the fabric of an industrial society of the capitalistic type. We do not come across in India of an industrial or even a typically agricultural landscape. "The huge factories, the railway cuttings, and embankments, the machinery, locomotive and stationery, by which the great industries of an advanced industrial community are supported, all of them represent accumulations, in return for the judicious application of which nature and the complex of industrial relations between man and man offer a revenue in the increased efficiency of human effort and resources."¹

A rigid and complicated structure of social relations such as that of India further complicates the problem of the individual's administration of resources by encouraging recklessness and improvidence among the junior members of a joint-family. Thus the volume of indebtedness which the junior members of a joint-family can accumulate with the local money-lender is determined not by the financial resources of the debtor alone but by the credit of the entire family in the local money market. This has been very cleverly capitalised by the local Mahajan who encourages the junior members of a joint-family into extravagance and recklessness. Further the passing away of a beloved member of a joint-family, the birth of a new member into the family, the marriage of a junior member of the family, the thread ceremony and other religious rituals which no Hindu or Muslim family can escape without raising a social harp's nest around their ears, are all occasions when the heart and not the head rules the administration of family resources.

So, too in regard to matrimonial alliances and responsibilities. The formation of a matrimonial alliance is more a social, than an economic, responsibility. Economic considerations do not enter the marriage-shamina at all. Marriages for men under twenty-one and for women under fifteen are a social necessity. And the first essential qualification for a bride-groom is not whether he can support his wife and any possible addition to the family, but

¹Commonsense of Political Economy, p.282.

whether he is a graduate or an undergraduate and whether he belongs to a family which can shelter the wife and children till the groom grows up into manhood.

Naturally therefore, an old bachelor is a rare commodity in this country. Social tradition looks down with contempt on old bachelors and considers them potential sources of mischief and disgrace. Like old spinsters, who are practically non-existent in this country, they have no *locus standi* in any of the major social and religious functions of Hindu society. They are treated as inauspicious and considered, along with widows and widowers, as symbols of evil, except when celibacy parades in the orange garb of a *sanyasin*.

Has the social tradition, then, exerting terrific pull on the side of early and irresponsible marriages, been responsible for the aggravation of the problem of population in this country?

This question needs careful attention, since the problem of population is a highly complicated problem with economic and non-economic factors closely and inextricably woven into it. Even if half the present married population remained unmarried and grew into sober bachelor-"hood", the problem of population would still devastate the country as long as no attempt was made to bring up the rate of production of subsistence to the rate of population-progress.

It would be, therefore, difficult to maintain, in the face of a severe analysis of the problem of population, that early marriages have in any way seriously complicated the problem of adjusting the food resources of the country to the dynamics of population. But it must be admitted that the impact of matrimonial relations and the vast network of social and economic obligations which it implies, have a serious effect on the individual's administration of resources, rendering the accumulation of savings an impossible adventure and also by discouraging drive and adventure in the younger men of the family on whom the shackles of marriage are imposed at an early age.

Is it true then that the Indian social system is responsible for the economic "stagnation" of the country?

The most important social institutions which have been widely attacked as being responsible, on the social side, for the economic muddle of the country in the present

century are the caste and the joint-family systems. For instance, Dr. Anstey asserts that India's economic future depends, in the main, upon fundamental "social reforms and reorganisation" directed towards "breaking up the existing over-rigid social stratification."¹ In a similar vein, the Author of Economic Planning for India writes, "The social traditions of the people have also been unfavourable to progress....The evils of caste and the low place given to women still remain standing blocks to progress, especially in rural areas."² These are severe indictments and must be carefully considered as they come from responsible and thoughtful writers about India and her problems.

"A caste," says Risley, "is an organism of the lower type: it grows by fission, and each step in its growth detracts from its power to advance or even to preserve the art which it professes to practise."³ Similarly, even an author of the repute of Sir S. Radhakrishnan has to say, "The system of caste is in reality neither Aryan nor Dravidian but was introduced to meet the needs of the time when the different racial types had to live together in amity.Unfortunately, this device to prevent the social organisation from decay ultimately prevented it from growing."⁴

If we connote economic progress as the evolution of a free and competitive economic organisation where social institutions offer no resistance to the forces of competitive adjustment, it must be confessed that the caste system has been a regular nuisance in Indian economic evolution. But let us invoke Marshall in this connection and see what he has to say about the caste system. "In early times," writes Marshall, "when religious, ceremonial, political, military and industrial organisations were intimately connected, and were indeed different sides of the same thing, nearly all those nations which were leading the van of the world's progress were found to agree in having adopted a more or less strict form of caste: and this fact by itself proved that the distinction of castes was well suited to its environment, and that.....the races or nations which

¹Economic Development of India, p.487.

²Sir M. Visvesvaraya, Economic Planning for India, pp.141-42.

³People of India, p.270.

⁴Indian Philosophy, I. pp.112-13.

adopted it.....could not have generally prevailed over others, if the influence exerted by it had not been beneficial. Their pre-eminence proved not that it was free from defects, but that its excellences, relatively to that particular stage of progress, outweighed its defects. ...excellent adoption of the system of caste for the special work it had to do, enabled it to flourish in spite of its great faults, the chief of which were its rigidity and its sacrifice of the individual to the interests of society, or rather to certain special exigencies of society.”¹ It is obvious, then, that the caste system which stands more for the solidarity of the social organisation than for individualism must generate enormous friction in a regime of individual freedom and competitive efficiency. The question whether we want the caste system at all depends upon the question whether we want “progress” which is connoted as the incessant adjustments of a competitive economic system.

Obviously, the caste system was part of a social planning in which the individual had to fit himself into the general scheme of society even though it meant the suppression of his own personality. Social solidarity was placed above individual opulence on the scale of cultural preference of the ancient social philosophers. Individualist economic freedom and expansion were, therefore looked upon, not only with mistrust, but also with positive horror. In fact such individuals were called Asuras or social monsters.

The Gita, in fact, enumerates the qualifications necessary for a person to degrade himself into the position of such a social monster, whom the *ethics* of a competitive economic system would elevate to the noble rank of a “captain of industry” in the Sixteenth Discourse, ending with the spirited denouncement:

Atmasambhavitah Stabdah dhanamanamadanvitah

“Self-glorifying, adamant and puffed up with wealth and pride.” •

The abhorrence of individualist expansion in a scheme of social planning envisaged by Indian social planners is something which can be easily appreciated. In a social order whose main object was the attainment of social stability and solidarity, the individual must either fit him-

¹Principles of Economics, pp.244-45. (Italics mine)

self into the social pattern or destroy the entire structure of social harmony.

It is in such a background that the caste system solidified itself in the Indian social structure. Such a scheme meant the regimentation of individual personality; it meant the abandonment, in each individual, of greed, of expropriation and of self-evolution which might generate forces of either social anarchy or general economic distress. The social planning of the type envisaged by our social philosophers could not end in the mere glorification of the individual: it aimed at social stability than at the emancipation of the individual. That is why the caste system was very severe in the enforcement of its "unwritten" laws.

Such a social institution must, in its very nature, be rigid. When subsequent social evolution changed the very basis of social adjustment and aimed more at the emancipation of the individual under the aegis of a competitive system of social and economic adjustments, the caste system offered the greatest resistance. And in the new dispensation it lost its social significance and became a mere, "technical" hindrance like munition factories in a scheme of peace-time economic adjustment. The impact of the new economic civilisation based on freedom and competition on the social system meant the gradual but definite emergence of the individual from the rigid social pattern which had held him in tact for so long and the new regime was utterly incompatible with the basic philosophy of a social organisation founded more on the Benthamite conception of social "progress" than on the liberal conception of Mill.

Naturally, the economic evolution of the twentieth century changed the environment in which the caste system had to find its niche. Society became complicated with new thoughts of liberalism especially in the urban areas where social disintegration had its genesis and the panorama of a new economic life, in which India had become a mere spot in a gigantic and complicated international economic order, unrolled itself before the country necessitating adjustments and readjustments in the social structure of the country especially in those parts which bore the full brunt of the cultural conflict. The caste system

got itself caught in the *general change* which the structure of social values experienced during this period.

Before we pass on, we must reiterate the truism that the impact of social structure upon economic evolution in any region is but secondary: 'economic forces' and 'economic conditions' have greater influence on social evolution than vice versa. The social evolution of the world has not yet justified the abandonment of the Engellian diagnosis of social change that "the final causes of all social changes and political revolutions are to be sought, not in men's brains, not in men's better insight into eternal truth and justice, but in changes in the modes of production and exchange."¹ Thus we are led to the thesis that the caste system or any other social tradition or institution cannot materially affect the basis of economic adjustment and that if "economic forces", or, as Wickstead defines them, "the resultant pressure of all the conditions, material and psychological, that urge men to enter into economic relations with each other,"² are powerful enough, the individual will burst through the shell of social tradition to seek adjustment with the general march of economic "progress". The breakdown of the barriers of the caste system in the new urban areas of the country like Bombay, Calcutta, Madras and in the distributing centres upcountry, clearly testifies to this process of social adjustment. In such a background, it would be difficult indeed to maintain that the caste system has sterilised "economic forces" in India and caused poverty and distress in the country by obstructing smooth adjustment between social change and economic progress; we would rather have to assume that the pressure of economic forces in the vast rural areas of the country where the caste system is still strong, is not powerful enough to dissolve cultural and social rigidities.

Conversely then, is the disintegration of the caste system and the joint-family system going to put India on the road to economic progress?

Perhaps it might be possible to ensure perfect adjustment of cultural and social factors to the movements of a competitive economic organisation, if we dissolved the

¹Socialism, Utopian and Scientific, p.45.

²Commonsense of Political Economy, p.167.

entire social and cultural civilisation of the country. This would mean the complete reconstruction of the framework of life for the three hundred and sixty million people of this country, so that there may be not only "broad acres" and a regular rural labour force in the rural zones, but also big factories and urban labour in the industrial centres. That task is not easy. Nor could such a transformation be achieved in this country without exposing the majority of population to untold misery and distress which would be entirely out of proportion to the reward that the country would get by way of large scale agriculture and giant industries under a *laissez faire* economic revolution.

Even under such a social reorientation, the economic problems would still be there. How are we going to solve the problem of the small farmer? How are we going to urbanise the vast rural population of the country? How are we going to keep our industrial and agricultural cost-structures stable in a competitive market and at the same time ensure sufficient wages for rural and urban workers during the period of reconstruction as well as after it? How are we going to raise agriculture to the status of a *profession* from its present planless plight? How are we going to restore balance in the economic relations between urban and rural areas, to ensure employment to all without letting any part of the available man-power of the country go to waste in a stagnant labour market? These are some of the questions which cannot be resolved by liquidating the caste and the joint-family systems. These are again the very question which we must first attempt to solve before we can hope for even a mediocre kind of economic stability in this vast country of ours!

In such a context, the disintegration of the caste and the joint-family systems will only imply further social chaos which will fling the country into a worse economic muddle than the one which has darkened the horizon today. The signs of the coming muddle which such a process would undoubtedly foist on the country are already clearly manifested in the emergence of middle-class unemployment which has lifted its ugly head over the urban areas. The imposition of the competitive scale of cultural values on a social structure which is still fundamentally corporative in character has only created an unbridgeable

gulf between the social scale of economic preferences and the economic scale of social preferences which has generated no end of confusion not only in the economic life of the country but also in the social system. Thus we come across the strange spectacle of social thinkers blaming the economic system for the cultural muddle and the economists blaming the social system for the economic muddle in the country to-day.

This is clearly reflected in the way the *savants* of this country have gone on dealing with the problem of urban unemployment as if it were a mere problem in the adjustment of economic ratios; and the same blunder is committed by the so-called "economists" who deal with the problem of rural distress as if it were a problem which must be solved by the adjustment of social institutions to the needs of a free and competitive economic system.

This intellectual confusion is betrayed by very eminent writers on the problems concerning India from the days of Dr. Knowles to our own times. It has almost become the fashion in the world of writers on India's economic evolution to blame the religious system of the country for the slow economic evolution of the past century. For instance Dr. Anstey tells us that in India, "Mediaevalism is manifest in the striking predominance of religion and its influence on...every other aspect of life", that, "in India religion holds a predominant position in every sphere of life", and "tends to present unreasoning opposition to every innovation, however enlightened and humane", and that "religion excludes the economic motive and replaces it by the ideas of custom and status."¹ This strange string of reasoning must be properly explored.

It is true that religion is still a living cultural force in our country: nothing has happened in the last century of cultural evolution of the world to shake the foundations of the religious life of India. But it is really strange to hold our religious life responsible for the anomalous economic evolution of the country. The most maligned religious doctrine in this country is the Doctrine of Karma, which simply preaches the performance of duty—economic, social, political and religious—by the individual according to the station into which he is born. This is only

¹Economic Development of India, pp.2 and 46.

the doctrine of a system of social planning which laid enormous emphasis on social solidarity and stability as against the emancipation of the individual in the social scheme. But could such a doctrine alone stem the gathering tides of economic progress if the forces making for the evolution of a competitive economic civilisation in India had been powerful and adequate enough to dissolve the social and cultural rigidities of this country? It would be indeed like arguing in a vacuum to go on proclaiming that the social system and the religious order of the country have been the stumbling blocks in the path of economic progress, and to comfortably forget the purely economic problems of readjustment and reconstruction which have *actually* caused the present deadlock, and but for whose existence, we, in this country, could have had our share of economic 'progress'.

It cannot be sufficiently emphasised that the economic system imposed on the country in the 19th century was unsuited to her cultural evolution through the ages; and that the religious and social institutions of the country did not beget the present economic muddle. India's social and religious civilisation was adjusted more to the cultural needs of corporate economic evolution than to the incessant chops and changes of competitive endeavour. Naturally, this lack of co-ordination between the cultural structure and the economic system of the country created cultural "mediaevalism" as well as economic "stagnation".

There is no doubt about the fact that since the first Aryan invaders settled down on the Indo-Gangetic plain to compose their elaborate prayer to Gods Varuna and Agni, the two Givers of Life, religion has occupied a predominant place in the "every-day life" of India. As the shadow of Aryan authority spread itself across the Vindhyan-range over the dark peoples and dark regions of the Dandakaranya, this torch of religion was carried along with the flag of conquest thus uniting the country into a religious uniformity so far as Hindu India was concerned.

This attempt at the cultural co-ordination of Hindu India is clearly testified by the way the ancient religious leaders chose the important places of religious "pilgrimage" and scattered them all over the sub-continent. Even the propagation of Western culture in India does not prevent the serious minded Hindu from visiting these places

of Hindu pilgrimage, and paying homage to the gods of his ancestors.

The extent to which religion had pervaded the life of the average Indian becomes clearer when we note that whether it be architecture or liberal or any other technical profession or art which any individual sought to pursue, he had to dedicate it to the entire society or, in smaller zones, to the local temple. Thus music, architecture, poetry, literature, drama, and even carpentry, sculpture and almost all the so-called "technical" and "liberal" professions of to-day were essentially either devotional or social. That is how even to this day we are spell-bound by the sculptural beauty that is invoked by the chisel of a band of unnamed sculptors in the magnificent public hall of the Meenaxee temple in Madura or in the Hall of the Thousand Pillars at Rameswaram or by the magic charm of the unsigned paintings of Ellora and Ajanta caves and the devotional music of religious poets like Tukaram, Tulsidas, Purandhardas and Tyagaraja and other poets too numerous to mention, but too great to be forgotten.

And religious celebrations which are held in periodical intervals some times as wide as twelve years are occasions not only for a vast revenue to the Indian Railways, but also when the Indian arts experience a temporary fillip. The most famous All-India festival from this stand-point is the Kumbhamela held at Allahabad, every twelve years, when pilgrims from all over the country pour into the Confluence of the Sacred Rivers. Similarly, each locality has its own special religious fairs and festivals when big congregations of people take place and goods and greetings are freely exchanged.

This sort of cultural evolution has tended to emphasise regional individuality than national personality. It has not only emphasised the individuality of each caste and sub-caste but also of each sect and sub-sect. While each caste and sub-caste have tended towards social isolation through the social tradition of endogamy, the process of cultural evolution as a whole has emphasised regional solidarity. In other words, each cultural unit has evolved itself into a federation of castes and sub-castes and has presented enormous cultural stability against forces of

disintegration. That is how we come to hear of the corporate solidarity of the rural unit.

Naturally under such a cultural evolution which has always emphasised group-personality, each region in the country has its own personality not only in social tradition but also in dress and dietary. Thus the dress that is worn in Mysore is entirely different from the dress that is worn in Mangalore; and in Madras, the dress that is worn by the Tamilians is as different from the dress that is worn by the Andhras, as the dress between the Austrian peasant and the Grecian trader. Similarly, in the Punjab, there is an almost unbridgeable social and cultural gulf between a Sikh and a Mohammedan and between both and a Punjabi *hindu*; in fact, it would be no exaggeration to say that there is greater similarity between a Frenchman and a German than between a Gujerati and a Madrasi, or even among the Gujeratis themselves, among Banias, Bohras and the Bhatias. A connoisseur can also distinguish between a Gauda Saraswat Brahmin and a Saraswat Brahmin as easily as he can distinguish between a Kathiawar Bania and an Ahamedabadi Bania. Similarly, a steep cultural and social barrier rises between a Konkarnasth and a Desasth Maharatta Brahmin, so that there can never be any kind of social relationship between them—let alone matrimonial alliance. It has been revealed that in Bombay alone there are more than five hundred strictly endogamous social groups.¹

Another factor emphasising the essentially regionalist type of cultural evolution of India, is the existence of a variety of languages.

Each one of the major Indian languages can further be subdivided into sub-languages and dialects. The *Kanarese* that is spoken in Mysore is not the same *Kanarese* that is spoken in Dharwar or in Mangalore. Even a small racial group like the Coorgis have their own language known as the Coorgi, which is a strange mixture of Old *Kanarese* and local dialects. Similarly, in Mangalore, the people speak Tulu a local dialect which is a jumble of *Kanarese*, *Tamil*, and *Malyalam*. Similarly the pure *Marathi* of the Deccan uplands evolves itself into the *Konkani* of the western sea-board not to speak of the local

¹Indian Year Book, 1937-38, p.67.

variations of Konkani which we come across in Goa and among the fishing tribes of the West Coast. The result is: the Mangalore farmer, who does not know Kanarese and comes down on the bus to Mysore to participate in the Dasara celebrations there, feels that he has come to another planet. Similarly, a peasant of the West Coast in the metropolitan City of Bombay. In fact, till a few years ago, it was no wonder if an average Indian crossing the frontiers of his native village felt that he had come to a strange land among a strange people. That is why even the late Lord Birkenhead could not resist the natural temptation of flinging a stone at this country: "To talk of India as an entity is as absurd as to talk of Europe as an entity. There has never been such a nation. Whether there will ever be such a nation, the future alone can show."¹

Nor is the complaint voiced by the late Lord Birkenhead an empty complaint. As every one knows, there has been in recent years an epidemic of separationist cries in the land. We hear of cries like 'Bengal for Bengalis', 'Bombay for Bombayites' and 'Madras for Madrasis' and an insistent demand, on the political side, for Pakistan, or a separate nation for Muslims within the country with complete economic and political independence. Along with these demands has proceeded the cry for the vernacularisation of secondary and university education. Provincialist prejudices and prides are rampant. These tendencies cannot vanish from this unfortunate country as long as India remains 'economically' unbalanced, if we accept a famous dictum that "the political independence of a country is in direct relation to its economic independence, or, in other words, to obtain the maximum degree of political independence in the far-reaching interplay of international competition, the maximum degree of economic autonomy must have been attained." An economically poor country can easily be the victim of all kinds of slogans: political, social and religious, which attempt to split the country into microscopic cultural groups warring with one another, thus creating an atmosphere of eternal civil strife and discontent. It is obvious that we cannot

¹Lord Birkenhead, in his speech on Indian Affairs, 7th July 1925.

weld our country into a cultural unit until we have assured for its people sufficient food and clothing.

The urgency of infusing a "corporate spirit" among the people is universally recognised. "The habit of large numbers of persons working harmoniously in business, politics and social activities should be instilled into our people as a second nature...In village life, at harvest time and in emergencies, cultivators even now do help one another; but a closer and more deliberately planned co-operation is possible in many more fields of constructive endeavour, bringing manifold benefits with it...and it should be inculcated by special instruction, exhortation and example."² The corporate spirit still pervades the majority of the five hundred thousand rural zones; and no special instruction is necessary beyond our attempt to preserve that spirit from being contaminated by the highly individualistic and selfish outlook of the urban areas of the country. We must preserve the cultivator a member of, what the Royal Commission on Agriculture called, "a definitely organised community, which has as far back as the history of social organisation in India can be traced, been dependent on itself for the means of living and, to a very large extent, for its Government."² Obviously we must sterilize "the rural structure against the impact of "certain influences", "which must sooner or later modify its characteristic self-sufficiency and which, in some parts of the country, have already begun to produce their effects,"³ if we want to preserve the country from a worse economic plight than that she is suffering to-day.

Has it not been declared that "the destiny of the peoples who have rushed towards the cities and abandoned the land is written in history: decadence lies in wait for them"? Unfortunately there is much truth in this obiter dictum.

In a country with such a complicated cultural system, economic evolution can only follow the course of least resistance. We cannot damage the social structure of the country without precipitating a major crisis in the land—

¹Sir M. Visvesvaraya, *Planned Economy for India*, pp.175-76.

²Report, p.479.

³Ibid, p.479.

in both rural and urban areas. Nor are we going to ensure for the country an economic system which will outweigh the disadvantages of cultural dissolution in a highly competitive international economic order. In fact, in this age of specialisation and efficiency, the boundaries of economic expansion for any single country are severely limited. In such an atmosphere, we can do no better than attempt to build our economic solidarity on the cultural foundations of the country instead of attempting to liquidate the social and cultural systems to meet the needs of a competitive structure of economic relations.

It is not necessary then to stay economic reconstruction till we have overhauled our social system and cultural tradition. We are already too late. On the social and cultural sides, we certainly do not know what we want: except wide generalisations like: "The greatest need of the day is mass elementary education...One of the main drawbacks of the educational system is the neglect of instruction in mechanics and mechanical engineering...The rural population will never improve unless an appreciable portion of it is trained for mechanical pursuits and taught to manufacture for themselves agricultural implements, house-building materials and furniture and other needs of efficient rural life."¹ Even the Royal Commission on Agriculture could not help betraying honest confusion regarding the problem of rural education: "In dealing with the problems of rural education," it admits, "it becomes difficult, if not impossible, entirely to dissociate elements which are purely cultural from those that are technical. That which broadens the cultivator's views on life must inevitably widen his outlook on his calling, and conversely, much of the technical knowledge proper to his industry is of service in his private and domestic life."² But none has told us how we are to "broaden the cultivator's views on life," and of what use a training "for mechanical pursuits" is for an agriculturist who has to live shut up in the seclusion of his village where conditions are quite uncongenial for the proper exploitation of his mechanical "training" especially when we remember that the Indian cultivator is toiling against heavy odds just to eke out a

¹Sir M. Visvesvaraya, *Planned Economy for India*, pp.167, 170.

²Report, p.513.

bare subsistence from his progressively dwindling farm on which even an agricultural expert could not raise a living margin. Nor does the agriculturist need technical training so far as his business is concerned. The Royal Commission on Agriculture itself testifies to it: "That in many places, the system of agriculture followed has attained a very high standard in matter of common knowledge; the cultivation of rice in the deltas, for example, has reached a marked degree of perfection and the wisdom of many agricultural proverbs stands unchallenged by research. The careful terracing of the hillsides, the various methods of irrigation from wells and tanks, the construction of accurately designed channels from the streams to the field and similar achievements in improving land disclose skill, ingenuity and patient labour,"¹ of which the Indian cultivator has obviously a sufficient stock. Then what is it that these reformers want to teach the rural population? Even if he is given actual demonstration in the efficacy of the power-pump or the bore-well or the thrashing machine, or the agricultural tractor, the average agriculturist of India cannot revolutionise his agricultural methods for obvious reasons. Even if liberal education is imparted in rural areas telling them how Mussolini has revolutionised land-exploitation in Italy by his scheme of Integral Land-reclamation, how Stalin has stabilised the economic life of Russia which, under the Czars, was a poor and emaciated country like India, they would only nod in silent admiration. How is elementary rural education going to help the Indian cultivator to seek adjustment between his cost-structure and the price in a competitive market for primary products? How will knowledge of up-to-date agrarian machinery imparted to him in a Government Agricultural College or Secondary School, and also knowledge of chemical fertiliser and green-houses and forcing frames that he might assimilate on the experimental farm attached to the College, help him to farm his one-and-a-half-acre farm in his native village so as to put his produce on the market at a *competitive* price and also maintain his family for one long year? Elementary education may give the agriculturist the satisfaction of reading the moneylender's mysterious statement of ac-

¹Report, p.14.

counts himself without invoking the assistance of the village school master, liberal education may tell him how the small farmer down Middle West is in as bad a plight as himself and how the American Government is doing its utmost to keep agricultural production tuned up to conditions in the world market for agricultural produce by restricting and regulating the agrarian production-processes and so on and so forth—matters which would be of little significance to him but would cause him unnecessary mental distress and dissatisfaction about his condition in a progressing world, to relieve which he can do so little. Naturally the Indian cultivator strikes impatient rural reformers, as he impressed the late Lord Birkenhead, that he is dominated by an “obstinate disinclination to be taught new ideas or to adopt fresh methods.”¹ The truth of the situation is, the Indian cultivator is caught in “the wider problem of an environment.”²

What kind of an “environment” do we want to create in India? On the answer to this question depends the problem of social and cultural reconstruction that we must attempt in India. If our survey of the foregoing pages regarding the material resources of the country are in any way correct, it is clear that we in this country are too poor to afford the services of our urban Caesars. As Prof. Laski says, “There are few societies able to afford the services of men like Mr. Rockefeller or Mr. Carnegie; the price we have to pay for them is too high. We cannot hand over whole populations to satisfy the Moloch-like lust for power in these men.”³ Being fairly aware of the havoc that unrestrained industrial enterprise has done to the social security of the countries of the West, we must attempt to erect an economic system which will perform certain duties assigned to it: “It needs to safeguard the welfare of the producer in the industry. It must secure to him an adequate return for his labour and such minimum conditions of effort as assure to him the full opportunity to exercise his functions as a citizen...It must prevent his degeneration into that animate tool which is to-day the position occupied by workers in every branch of industrial activity. It must assure them the same con-

¹Speech on Indian Affairs, reported in India in 1925-26, p.353.

²Royal Commission on Agriculture, Report, p.14.

³A Grammar of Politics, p.487.

sideration for their personality as human being that is offered to the worker in the industries operated by (the State) itself. It must prevent that domination of management and technique by the speculative financier who has in recent years done so much to impair the prosperity of the cotton industry in Lancashire and the railroads in the United States."¹ To which we can in this country add that the social stability and economic integrity of the three hundred million toilers must be the first concern of all schemes of reconstruction and not the success or failure of a few handful of the industrial little Caesars who live in mansions, own a fleet of cars and have their collars laundried in Paris and send their children to honeymoon in Rio De Janeiro!

The paramount duty of all schemes of economic reform in this country must then be the restoration and preservation of the stability of the little farmer and the integrity of the small artizen and the craftsman. Our social system must be reconstructed to suit such an environment and the economic system synchronised with the general scheme of civilisation of this type. No doubt such a scheme would shatter the fond visions of those reconstructionists who have, for years, like Sir M. Visvesvaraya, dreamt of recreating a Germany or a Japan in this sub-continent and it would also mean a severe disappointment for those who had dreamt of petty industrial kingdoms in India over which they could rule as monarchs; and there would be no room in such an environment either for the "banker" who had all these years built up his castle on the bones of the helpless agriculturist or of the destitute urban worker, or for the "broker" who had made his fortune irrespective of the homes broken in the process. It is possible that the Moghuls of industry may not give their blessings to such a scheme of reconstruction by their active co-operation, and if we are ever confronted with such a situation, we can only say with Prof. Laski, "If that means that the modern Napoleon will not enter the industry, it follows that we must do without his talents."²

Few would disagree with Dr. Gregory when he said, "The more complicated and developed a society becomes,

¹H. J. Laski, *A Grammar of Politics*, p.476.

²A *Grammar of Politics*, p.487.

the less desirable it is to add to the causes of social friction."¹ It is obvious that we cannot fit India to the exigencies of an effective and competitive economic system without dissolving the existing social order and multiplying "the causes of social friction"; and the consequences are too enormous even to contemplate. The rural units of the country have, through all the stages of the cultural and economic evolution of the country, presented such a solid and stable structure that we cannot now disorganise them without causing serious dislocation to the civilisation of the country. It may even be asserted that our future economic and cultural stability depend upon the way we are going to preserve and strengthen our rural structure. "The village communities," declared Sir Charles Metcalfe, more than a century ago, "are little republics. They seem to last where nothing else lasts. The union of the village communities, each forming a separated little State in itself, has contributed more than any other cause to the preservation of the people of India through all the revolutions and changes which they have suffered."² In such a background, it would indeed be a great calamity if, in our feverish enthusiasm for all-round reform, we demolished the structure of rural life which, though it has not been conducive to the efficient evolution of a competitive economic civilisation, has been an immense source of strength and stability in the general life of the country.

A close analysis of the special problems of India clearly reveals that if the social evolution of the country during the past century has given us the problem of urban unemployment, or as it is fashionably called, "middle-class unemployment," the economic evolution of India during the same period has generated the gigantic problem of rural underemployment. Any scheme of reconstruction which attempted to solve the problem of urban unemployment through economic readjustment would be guilty of the same blunder which a scheme of reconstruction which attempted to liquidate the problem of rural underemployment through social read-

¹Dr. Gregory in *Fortnightly Review* of September, 1931, "The Price Problem and the Stability of Economic Society".

²Sir Charles Metcalfe's *Minute*, dated November 7, 1830. Quoted by Romesh Dutt in his *India in the Victorian Age*, p.197.

justment would perpetrate. But we are doing exactly what we ought not to do in this regard!

The problem of rural underemployment was not created by social disintegration; nor was the problem of urban unemployment created by economic disintegration; yet a whole generation of "economists" in this country have been pleading for industrialisation of the country to solve the problem of urban unemployment and for reconstruction of the Indian educational system so as to give greater importance to technological studies; and have been urging for the dissolution of social rigidities like the caste system and the joint-family system to solve the problem of rural underemployment so that all the agriculturists without caste restriction may go over to cottage industries to supplement their income.

The problem of urban unemployment is the result of social disintegration and must be solved, not by economic readjustments or vocational education, but by a reorientation of the social scale of preferences, which has to-day elevated higher and liberal education into a means of livelihood instead of making it an end in itself. No one enters Oxford or Cambridge Arts classes with the object of earning a living with the help of his degrees; for those who would like to serve the community as members of a profession, there are many courses open—like engineering studies—electrical, mechanical, sanitary and civil; medicine, law and commerce. But in India of the 13 million students entering the portals of the sixteen Universities and several hundred educational institutions imparting higher education, not a single student joins up without dreaming of a grand future for him either in the civil service of the country or as a lawyer or physician swaying thousands of men in his wake, and not a single student leaves his *alma mater* without serious disillusionment. Can technical education change this state of affairs? Urban unemployment is the tragedy of honest labour of twenty years clearly gone into waste; and as such is a serious disturbing factor in the national life of India; mere technical education cannot liquidate this crisis—when there are no channels of employment for the technical talents of the country: in such a background, technical education will only create another crisis in the country similar to that which legal and medical education have

created—by turning out starving lawyers and grabbing physicians and letting them loose on an unsuspecting community.

Naturally then, we turn to pour indictment on our social and cultural system. We declaim with Sir M. Visvesvaraya, "The lives of the bulk of our people are regulated by custom and tradition. There is no appreciation of the precept that every person should prosper by his own effort; there is no agency responsible to watch whether people in any region or community are progressing or deteriorating, no organisation to build up business, or to find employment for the workless. The bulk of the rural population are deficient in discipline and sound working habits; they have no technical skill, no capacity for team-work, no enterprise; they do not observe even regular hours of work."¹

The foregoing study of the social and cultural problems confronting the country to-day must have clearly demonstrated the futility of reconstructing the social and cultural lives of the three hundred and fifty million people of this country to suit the needs of a competitive economic system. Such an endeavour would only widen the area of distress and despondency that is already existing in the country. We have only to note how the social evolution of the country in the past century has created the gigantic problem of urban unemployment which has darkened the threshold of many middle-class homes and shattered the self-confidence of the youth of the country, before we attempt to even consider any scheme of a nation-wide social and cultural reconstruction which would sweep away all our existing institutions.

In such a background, the economic reformer can only plead for the creation of an economic system which would, while sterilizing our social and cultural rigidities, maintain not only regional personality but also the solidarity of the whole country by strengthening our rural structure and evolving a regional economic system which renders each rural unit a co-ordinated part of a gigantic economic structure which places national stability before considerations of mere *technical* efficiency. That is how India can find her own ancient personality and command a respectable place in the economic civilisation of the world.

¹Sir M. Visvesvaraya, *Planned Economy for India*, p.166.

Nature has amply proved that she did not intend that India should be another Germany or Japan or even a second edition of England. India cannot have the glory of economic conquest of the international markets; she must be content with economic stability and cultural solidarity, if she is to preserve herself in the days to come. Those who hold the prospects of a very bright economic future for India are either ignorant of the basic ailments of the country or are mere 'optimistic triflers' who cannot be taken too seriously.

For one thing, India is a vast country and any scheme of planning implies the almost formidable task of regimenting the lives of the huge population of the country which have been closely interwoven by economic and non-economic factors of evolution which cannot be disturbed without plunging the three hundred and fifty millions of people who have found some kind of adjustment with their environment—good or bad or even indifferent—into unmitigated distress—both social and economic.

What does social change mean for these people? It would mean the bursting of their homes and traditions where, amidst their classic poverty, they had sought contentment and peace. Could a new order based on competent production and competitive exchange and involving incessant social and economic shifts and changes to suit the kaleidoscopic transformation of an international competitive market give anything of peace and security to these people? Could we assure them a standard of life which would adequately, if not amply, compensate for the loss of their homes and traditions and their peace and contentment? What guarantee is there that such a general cultural dissolution of the entire country will put India on the road to "prosperity"—in a conjuncture in which the country has not been able to steady itself from the effects of social and cultural dissolution involving only the ten per cent of its population which has sought adjustment with the new cultural conditions in the urban areas?

Therein lies the importance of maintaining our five hundred thousand rural zones from being caught in this disaster and giving them cultural solidarity and economic stability before it is too late. We have to fight hard against time. "Already", writes the Royal Commission on Agri-

culture, "complaints are heard of the decay of corporate work for the good of the village, of the decline of old-time domestic and village industries and of difficulties in regard to labour—familiar signs of the adjustment of an ancient economy to new conditions."¹

The questions before all thinking men to-day are: should we rescue the country from the imminent disaster of cultural and social disintegration which the evolution of a competitive economy in the country has precipitated? Or should we allow the country to drift along the course of competitive economic evolution through the royal road of industrialisation and leave the problems of cultural and social reconstruction to be solved by the inevitable but "invisible" adjustments of *laissez faire* processes? Or should we attempt to maintain our ancient civilisation by an economic reconstruction which would aim more at the preservation of regional solidarity and personality than at the attainment of competitive efficiency?

A closer examination of these questions forms the subject-matter of the following chapters of this book.

¹Report, p.498.

CHAPTER IV

THE ECONOMIC NEXUS IN INDIA.

"THE present state of the nations", wrote Frederick List in the nineteenth century, "is the result of the accumulation of all discoveries, inventions, improvements, perfections and exertions of all the generations which have lived before us; they form the mental capital of the present human race, and every separate nation is productive only in proportion in which it has known how to appropriate these attainments of former generations and to increase them by their own acquirements."¹

Before we proceed to consider how India has administered her own and the world's *mental capital* and her own material resources and built up her economic structure in an attempt to seek adjustment with the forces of economic advancement, it would be well to pause to consider how the Great Powers have built their intricate net-work of economic relations.

The economic nexus, or as Wicksteed would define it, the "complex system of economic relations"² does not manifest itself in a vacuum; it has to seek its institutional expression through the intricate machinery of the regional social and cultural structure; hence the individuality and relativity of all economic institutions. No economic analysis which forgets the relativity of economic institutions or the empirical limitations of the economic nexus which is seeking self-expression through a rigid social and cultural structure of a region can either assess properly the economic problems of the country or region concerned or understand the reciprocal actions and reactions between the economic nexus and the general scheme of civilisation of the zone concerned.

The limitations that the economic nexus* has to face in seeking expression through the social and cultural structure of a region emphasise not only the interspatial relativity of economic institutions but also their inter-tem-

¹National system of Political Economy, p.113.

²Commonsense of Political Economy, pp.172-73.

poral relativity. Thus the economic nexus does not manifest itself in similar economic institutions in two dissimilar regions, nor are economic institutions the same in the same country at two points in time. While the economic nexus was responsible for the growth of trusts in America, the British Parliament was at no time in its history faced with the problem of legislating anything resembling the Sherman Anti-Trust Acts. Similarly the history of the railways in the U.S.A. is hardly like the history of English Railways. Nor was the evolution of transport in England the same as the evolution of the French or German railway systems. Nor can one argue that the economic institutions and policies which served a country in one period of its evolution will serve her for all times. "If," writes Fay, speaking about England, "the God of the 18th century was visible property with broad acres and elegant shrubberies, the God of the 19th was invisible capital hidden away in a dusty office."¹ If Von Moltke rose again in modern Germany and declaimed that "When German agriculture collapses Germany will collapse without a shot" he would look as silly as Socrates in Piccadilly Circus. Similarly we can treat economic policies. England which was the great champion of free trade or *laissez faire* in the middle of the 19th century, began to seriously tolerate the haranguing of Joseph Chamberlain and his dream of an Imperial Zollverein at the close of the century. "In economic essence," says Fay, "England is the mother country of an empire, and yet for nearly half a century, say 1830 to 1870, she thought herself an isolated nation in a free trade world that would shortly come to be... Yet since 1906, there has been a growing sentiment for imperial preference and since 1918 a considerable departure from free trade."² This is inevitable. Since the economic nexus has to function through the social and cultural structure of the region, it is only logical that economic institutions and policies must bear their stamp of both interspatial and intertemporal relativity. This only emphasises the dynamic nature of economic institutions and policies, and stresses the importance of keeping them in a constant state of adjustment with the changes and shifts of a progressing world. This ana-

¹C. R. Fay, *From Adam Smith to the Present Day*, p.133.

²Ibid, pp.80-86.

lysis reveals at once the evolutionary character of economic institutions and that, as Balfour might have said, economic institutions are easily copied, temperaments are not; and if it should happen that the borrowed economic institution and the native temperament fail to correspond, the misfit may have serious results. To discover and carefully analyse the mechanism of action and reaction between the economic nexus and the cultural structure of a region is the business of economic history.

"In the last century and a half", writes Graham Hutton, "the Western world has seen a degree of material development that can only be called momentous. So rapid and so far-reaching has this development been that not only has the organisation of the world been altered, but its very foundations have been threatened... It is generally called the Industrial Revolution... The developments in this period can be grouped under three heads. First and foremost, there is the growth in human control over, and the exploitation of, natural resources. We can broadly call this the Scientific Development... Secondly, there is the development of all the methods of applying scientific discoveries. Since the growth of applied science has been the greatest in the sphere of communications, material production, and distribution, we can broadly call it the Economic Development... We may call this third development Political..."¹ The end and aim of the twentieth century civilisation has been to keep these three branches of progress in a state of constant co-ordination. The pace of the three "developments" has hardly been uniform: *the scientific* being always far in advance of *the economic* and *the economic*, far in advance of *the political*. "In fact," says Hutton, "the Scientific, Economic and Political were like partners in a four-legged race, with the political always out of step in the middle."²

The progress of science and the alliance between science and industrial technology changed the pace of economic development in the West. Out of a world of leisure and small handicraft, the technical revolution of the last two centuries created a world of speed and international greed.

¹Nations and the Economic Crisis, pp.1 and 2.

²Nations and the Economic Crisis, p.7.

The first country to build the new structure of industrialism was, of course, England. England not only had the advantage of priority in the alliance between science and industrial technology, but also the conditions necessary for the genesis and propagation of the new industrialism. Though England was certainly no leader in the realm of pure science, she was easily the first in inventive genius. All her inventors who were responsible for the phenomenal transformation of the technique of new industries were ordinary men. James Watt, the inventor of the steam engine, was a trader in mathematical instruments; Matthew Boulton was a hardware merchant, Thomas Savery who invented the fire-engine was a cloak-maker of Devonshire; Thomas Newcomen who built the first model engine in 1705 was a blacksmith at Dartmouth; James Hargreaves the inventor of the *spinning jenny* was a Blackburn weaver and Richard Arkwright the father of the water-frame which revolutionised the textile industry was a barber of Preston; Crompton of the "Mule" fame was the son of a small farmer-weaver. None of them could have passed even an elementary examination in physics or chemistry even in those days, and yet among them they created the age of the machine—the age which has been the golden touch of the present-day world with its factories, banking institutions, its vast and intricate network of international co-operation and competition, and its problems of human work and welfare.

The greatest single stimulus for this technical transformation in England came certainly from England's expanding markets in her colonial empire. "Favourably situated on the fringe of the Atlantic," writes Fay, "she jumped within a century from subordination to empire. In 1588 the young island nation sank the Armada of Continental Spain and naval victory prepared the way for the foundation of the East India Company in 1600. Thus was a colonial empire born. As an American historian has observed, 'this desire to free England from the necessity of purchasing from foreigners formed the underlying basis of England's commercial and colonial expansion.'¹ And how was England's industrial revolution financed? "By foreign trade Great Britain accumulated the capital which provid-

¹From Adam Smith to the Present Day. p.123.

ed for the further expansion of that trade, as well as for the building of great houses in town and country, the improvement of the land, and the increase of industry. The industrial revolution was financed from the profits of foreign trade."¹ Thus English colonial expansion not only provided stimulus for invention but also created an atmosphere in which industrial revolution became inevitable.

In other countries of Europe, industrialisation followed slowly. Though armed with a larger export trade during the eighteenth century than England, "France not only failed to achieve in the eighteenth century that reconstruction of manufactures which lent distinction to England, but did not experience even the beginnings of the transformation until the following century was somewhat advanced", because, "the advantages in respect to available capital, skilled labour, fuel-supply, industrial liberty, and stability of political conditions lay wholly with England." Thus French industrial revolution began only in the half decade 1825-30.²

Because of France's natural limitations regarding mineral resources like coal and iron, "French industry has inclined always, as it is to-day, towards the production of articles of luxury....."³ Among the continental countries, Germany was the last to adopt the modern industrial system; it was not till 1845-50 that there was anything like an industrial revolution in Germany. The economic distress of the country prevented it from experiencing economic reconstruction earlier. "Wealth was largely in the form of land," we are told of Germany of the 19th century, "and even among the well-to-do classes there was comparatively little capital capable of being employed in industrial enterprise."⁴ This is evidenced by the fact that in Germany as late as 1840, the banking power of the country was far less than that of the United States of America and, of course, of England. The real industrial revolution of Germany was thus delayed till after the creation of the Empire in 1871. Being comparatively late in adopting the new technology in industry, Germany was

¹C. R. Fay: From Adam Smith to the Present Day, p.127.

²Ogg. Economic Development of Modern Europe, pp.206-7.

³Ibid, p.208.

⁴Ibid, p.211.

spared the trials and tribulations which fall to the lot of all pioneers. As Veblen says, "Modern technology came to Germany readymade." In fact, German industrial expansion was not a simple phenomenon; it was not accomplished with a simple wave of the hand. Political unity typified in the North German Confederation of 1867 and culminating in the creation of the Empire in 1871, the acquisition of the rich mineral resources of the province of Alsace-Lorraine, the development of the home market, tariff-protection since 1879, the increase of population, progress of transport and communication and the emergence of Germany in the decade 1880-89 as an overseas empire builder and world power—all have contributed towards the magnificent economic reconstruction of Germany in the 19th and the present centuries.

None of the factors which have brought about the technical transformation of the great powers are present in India. Unlike America, India is an old country with her soil reaching the limit of agrarian exploitation; nor has India the expansive prairies which she could successfully exploit for an international market. Like England, India does not possess any colonial markets which she can hold against foreign competition through the successful manipulation of the tariff—both preferential and protective. At no time in the long course of her history was India awarded, like Germany, a staggering war indemnity with which she could transform her economic system; nor could she raise the requisite capital by colonial plunder; "English industries," writes Arnold Toynbee, "would not have advanced so rapidly without protection, but the system once established led to perpetual wrangling on the part of rival industries and sacrificed India and the colonies to our great manufactures."¹ Nor was there in India, as in France, a feeling of political security and social solidarity which has given France a stable economic system and a respectable place in the economic hegemony of the world. Nor has India experienced the political unity which gave Germany and Japan their chance to build their epoch-making economic civilisations. The result is India has not yet been able to climb out of the economic muddle in which the inexorable march of history flung her.

¹The Industrial Revolution of the Eighteenth Century, p.58.

It is needless to go into the thesis developed by the Indian Industrial Commission in its now classic statement that: "At a time when the west of Europe, the birth-place of the modern industrial system, was inhabited by uncivilised tribes, India was famous for the wealth of her rulers and for the high artistic skill of her craftsmen."¹ "Long before 1858," writes Romesh Dutt in a little-read preface, "when the East India Company's rule ended, India had ceased to be a great manufacturing country. Agriculture had virtually become the one remaining source of the nation's subsistence."² The period between the middle of the eighteenth century to the significant year 1858 is the period in which the cultural and economic back-bone of India was shattered. In the political thought of the people of India, the mid-eighteenth century still carried memories of the famous Moghul Emperor, Aurangzeb, who had passed away in 1707 after having vainly tried to hold a vast empire with a small mind. With his death political confusion descended on the land; little princes, powerful robbers and powerless principalities sprung up like mushroom all over the country and kept India in a constant state of political turmoil and economic strife. The epoch under review reads like a midsummer nightmare, haunted by grotesque figures which float over the great canvas of history in an endless procession. The period is naturally covered with war and strife, the rise and fall of many kingdoms and general anarchy. The economic system had to be kept fully tuned to this state of affairs: the munition industries, iron and steel industries and other auxiliary industries of defence and offensive together with agriculture experienced the stimulus of uncertainty which is always associated with a period of conflict and confusion.

Into this atmosphere of tumult and turmoil came the "blight" of peace guaranteed by the East India Company. Even before the 19th century had advanced to its forties, India's economic system had collapsed under the stress of adapting itself from "war-time" boom to peace-time stability.

¹Report, p.1.

²Preface to the Economic History of India in the Victorian Age, p.viii.

"Content with the limits which Nature appears to have assigned to its empire", said Auckland in 1842, "the Government of India will devote all its efforts to the establishment and maintenance of general peace, to the protection of the sovereigns and chiefs, its allies, and to prosperity and happiness of its own faithful subjects."¹—a proclamation which spelled the ruin of all industries connected with the colourful age of the Moghul Empire.

J. C. Melville put the dawn of the new era of economic adjustments to begin in the year 1814² and by 1840, Sir Charles Trevelyan could declare before a parliamentary committee, "The peculiar kind of silky cotton formerly grown in Bengal, from which the fine Decca Muslin used to be made, is hardly ever seen; the population of the town of Dacca has fallen from 150,000 to 30,000 or 40,000, and the jungle and malaria are fast encroaching upon the town. The only cotton manufactures which stand their ground in India are of the very coarse kinds, and the English cotton manufactures are generally consumed by all above the very poorest throughout India... Decca, which was the Manchester of India, has fallen off from a flourishing town to a very poor and small one: the distress there has been very great indeed."³ This is symbolic of the process of disintegration which overtook almost all the old industries of the country. India was in the birth-pangs of a new economic order!

As the 19th century wore on, India lost all her industries one by one, which had kept her economic system on an even keel. The process of disintegration had fairly advanced even before the 19th century had reached its third decade. Writing in a minute of May 30, 1829, Lord William Bentinck had said, "The sympathy of the court is deeply excited by the report of the Board of Trade, exhibiting the gloomy picture of the effects of a commercial revolution, productive of so much present suffering to numerous classes of India, and hardly to be paralleled in the history of commerce."⁴

¹Lord Auckland's Proclamation of October, 1842, Quoted by Romesh Dutt in India in the Victorian Age, p.11.

²See Romesh Dutt, in Ibid, p.101.

³Quoted by Romesh Dutt in India in the Victorian Age, p.105.

⁴See Romesh Dutt, Ibid, p.110.

Why did Indian industries collapse so dramatically? What has the New Order which has been erected on its morbid foundations achieved in India? Why have the forces of economic adjustment become sterilised? These are some of the questions which occur to any dispassionate enquirer into the economic problems of the country.

In seeking an answer to these questions, we must not commit the error of superficial judgment. "A deliberate endeavour was made," some claim, like Dutt, "to use the political power obtained by the East India Company to discourage the manufactures of India."¹ On the other hand we are told: "Attempts were frequently made...to introduce into India various manufactures with state support and encouragement; but in the absence of scientific knowledge, such experts as were then available were unable successfully to adopt the results of western experience to Indian conditions, and most of the enterprises ended in failure."² The truth, as usual, lies between these assertions, as we shall see later on. The "stagnation" in India's economic evolution is due to a combination of all these factors—which we can sum up in Wagner's celebrated expression, *Conjunctur*, or in other words, "the sum total of the technical, economic, social and legal conditions" prevalent in the country.³

It is only by a proper study of the *conjunctur* of the nineteenth century India that we can understand the ultimate cause of the economic muddle of the country.

The technical atmosphere in which India found herself in the 19th century was entirely different from that of any other preceding century of her long history. The world was witnessing a phenomenal transformation in industrial, agricultural and commercial technical conditions—which Arnold Toynbee has familiarised to us in the now famous phrase, Industrial Revolution. "The quarter of century beginning with 1760," writes Marshall, "saw improvements follow one another in manufacture even more rapidly than in agriculture. During that period the transport of heavy goods was cheapened by Brindley's canals, the production of power by Watt's steam-engine, and that

¹Quoted by Pandit Malaviya in his Minute of Dissent to the Industrial Commission Report, p.297.

²Industrial Commission Report, p.1. ³Grundegung, Ed.III, p.389.

of iron by Cort's process of puddling and rolling and by Roebuck's method of smelting it by coal in lieu of the charcoal that had now become scarce;...A cotton factory was for the first time driven directly by steam in 1785, the last year of the period. The beginning of the nineteenth century saw steam ships and steam printing presses, and the use of gas for lighting towns. Railway locomotion, telegraphy and photography came a little later."¹ This dramatic technical transformation meant not only the emergence of factories and mechanised industry but also the widening of markets and the intensification of international competition. Technical transformation of the means of transport and communication implied economic decentralisation and a greater degree of international specialisation. It is no longer a case of "scarlet at Lincoln; blanket at Bligh; burnet at Beverley," or of calicos at Calicut or of muslins at Decca or shawls at Kashmir; the range is undoubtedly far wider; the trade is no longer merely inter-regional, but international in a very real sense. But for the revolution in transport, the vast network of industrial and commercial relations would not have been possible. Because of the transformation in ocean transport, we hear of the meat industry of Chicago and of the mutton industry of Australia and the innumerable attempts made all over the world to provide each market with the fruits of technological progress in cheap and efficient goods and services.

Thus the technical conditions of the world in the 18th, and the 19th centuries broke down the economic isolation of India even as they broke down the isolation of almost all the countries which were caught in the inexorable march of progress. The challenge had come to the spinners and weavers of India either to adopt the technique of the new era or face annihilation. They were no longer living in an age of leisure and homecraft. The new technique in industry not only gave the competitors the advantage of mechanised production but also the superior skill that comes from the integration of labour and the disintegration of productive functions. In such a background the Indian industrial producers could not hold any portion of the new home market with their antiquated instruments of production. India was thus faced with the

¹Principles, foot-note to page 747.

gigantic problem of reconstructing her complicated mechanism of economic adjustments to suit the exigencies of an era of efficient production and competitive exchange.

Such a technical transformation involving the reconstruction of the entire civilisation of a vast country like India meant several intricate adjustments—cultural, technical and economic. In the first place, it implied the complete and final dissolution of the old economic system. Secondly, it meant urbanisation with a view to industrialisation of the new type; thirdly it meant a transformation in transport and communication to fit the country to the new economic system of international co-operation and competition.

Though the dissolution of the old economic system was fairly advanced even before the nineteenth century had reached its meridian, the process remained uncompleted and still remains so. There are yet existing in the country five hundred thousand rural zones which are still maintaining the framework of the old order unimpaired. As regards urbanisation of the industrial type, we can assert without fear of any kind of serious challenge that for the vast area of nearly two million square miles in this country there are only two *industrial* towns in the real sense of the term: Ahmedabad and Jamshedpur, the rest of the urban areas being merely distributing centres of foreign trade where the agriculturist exchanges his products and obtains his share of foreign and urban goods.

Nor can we say anything hopeful of the Indian Railways which were constructed more for the administrative co-ordination of the country than for its economic conservation. "Every cheapening of the means of communication," said Marshall, "every new facility for the free interchange of ideas between distant places alters the action of the forces which tend to localise industries."¹ The history of Indian railways clearly demonstrates the stupendous part played by the transport system in intensifying the economic muddle of the country. The evolution of transport and communications in India was neither intended, nor actually did anything, to co-ordinate the economic system of the country. It neither commercialised the vast

¹Principles, p.273.

agricultural resources of the country nor developed the industrial opportunities on new lines of competent production and competitive exchange. With a transport system which was evolved quite independently of the economic system of the country, India had her difficulties of economic adjustment vastly magnified. This was undoubtedly an important factor which has been responsible for the economic stagnation of the country. Under such a transport system which refused to co-operate with the general scheme of economic evolution of the country, not even the cleverest economist can build up a solid economic system!

Let us consider in broad outline our railway system. The first railroad in India, we learn, started "from Bombay to Kalyan a distance of 33 miles (one of the experimental lines sanctioned in 1849)"¹ in 1854. The other two *experimental* railroads sanctioned in 1849 were: from Calcutta to Raniganj a distance of one hundred and twenty miles in east India and from Madras to Arkonam a distance of thirty-three miles in south India. Bombay was known at the time of construction of the railroad neither for its overseas commerce nor for its agricultural resources. Till the middle of the 19th century, Bombay was only a collecting centre for the smaller ports of the west coast. Nor did Bombay achieve anything like economic or commercial importance till after the American Civil War in the sixties when the Indian cotton trade experienced a phenomenal expansion, and Bombay itself had been linked up with the cotton-growing tracts beyond the Ghats and the wheat field of the Punjab and the United Provinces by railway. The same is true of Madras as well as of Calcutta; railways were constructed there not because of the pre-eminent position which those places held in the economic system of the country, but they came to be important centres of trade *because* of the railways.

Had railway construction in India been a co-ordinated part of the economic evolution of the country, as it has been in almost all the countries of the world, it would have first opened up the rich agricultural tracts of the country: the cotton fields of the Deccan and the west coast, the rice and cane fields of the southern parts of the country, the

¹Handbook of Commercial Information for India, 1937, p.7.

wheat zones of the Punjab and the United Provinces and the fertile Indo-Gangetic regions and linked them up with the coast; it would then have reached the rich "black country" of Bihar and Orissa and connected it with the sea-board; it would have linked up old centres of "special industries" like Madura, Benares, Decca, Murshidabad and Cawnpore and would have closely followed the economic evolution of the country assisting it and directing its course. Instead, the Indian railway system started from economic nowhere like Bombay and Calcutta and proceeded to the economic "no-man's-land" like Kalyan, Raniganj and Arkonam.

Thus though the railway mileage of our country is comparable with that of any other country where agriculture predominates the national economy, India is still hopelessly backward, because of the lack of co-ordination between the evolution of transport and the evolution of the general economic system of the country. In 1926, India possessed 2.2 miles of railway per 100 sq. miles, while the Union of South Africa had 2.4, Argentine 2.0, Australia and New Zealand 0.9, European Russia 1.5, and Canada 1.0.¹ And in the year 1935-36, the total railway mileage open for traffic in the country was 43,118.36, while the railway system, earned on its total capital outlay a net return of 3.74 per cent. A perfect co-ordination between the Indian railway system and the economic evolution of the country would not only have enabled the country to maintain a higher railway mileage at a better net return on the total capital outlay, but would have stabilised the economic system. And there would have been as glorious a romance of railway development in India as there has been in the United States of America leaving, of course, the dark days of early exploitation in American railway history.

Because of its non-economic genesis, the early days of railway construction in India were darkened by the universally condemned **guarantee system**. Between the year 1849 and 1858, as shown by Dutt, Government paid to the East India Railway, Great Indian Peninsular Railway and Madras Railway Companies a grand sum of £2,244,829 by

¹Report of the Royal Commission on Agriculture, p.369, for further information.

way of guaranteed interest on their capital outlay.¹ This was the price which the country had to pay, in coin alone, to keep up a railway system which did nothing to conserve the productive resources of country—but a still higher price was to be paid in the evolution of an anomalous economic system in the country which has wrought such profound change in the lives of the three-hundred and fifty million people of India.

"Transport and industry," says Fay, "are interdependent: communications are established to handle traffic and by their establishment new traffic is created. It is not possible to exploit the agricultural resources of new continents until adequate railroads have been built across them. The time-lag between the building and the harvest is so serious in most new countries that the Government gives land or money to builders or operates them itself."² India was not a new continent; nor were railways in India constructed across the 'continent' "to exploit the agricultural resources" of the country. The result was: neither was the Indian railway system built to "handle traffic" nor did the railway system "create" adequate traffic in the country. Economically, the Indian railway system was as anomalous as the economic system it set up in India.

The anomalous transport system of the country only created an anomalous movement towards commercial urbanisation. Urbanisation in India was not, and is not even to-day, the result of industrialisation as in England and Germany; nor is it the creation of commercialisation of agricultural and natural resources as in the United States of America and Canada. Indian urbanisation is the artificial product of an artificial "economic" evolution: some urban centres evolved themselves into their present size because they happened to be railway junctions and consequently assumed the role of distributing centres for Anglo-Indian trade like Nagpur, Cawnpore and Agra, some towns grew up because they were the new centres of British Administration like Madras, Bombay and Calcutta not to speak of up-country towns like Belgaum, Hubli and Raichur and

¹For fuller information refer to Dutt India in the Victorian Age, Ch. XI, Irrigation and Railways.

²From Adam Smith to the Present Day, p.173.

other places too numerous to mention; commerce in these places, if any, is a secondary factor in their development. Bombay was not built mainly by its commerce; but its commerce and industry were developed because it was one of the oldest and most formidable centres of British Administration since the 17th century and assumed its pre-eminent importance with the consolidation of British rule in India in the 19th century. This aspect of the urban evolution will be dealt with in greater detail in another portion of this book.

Though conceived as an instrument of administrative consolidation, the Indian railway system did not go without profoundly influencing the economic evolution of the country. It sank old towns into oblivion or resurrected them as mere distributing centres in the new economic dispensation; it hastened the disintegration of the old economic system; it created new urban areas which had neither industrial nor agrarian importance; it kept the five hundred thousand rural zones in a medaeival twilight entirely cut off from the zones of economic progress; it destroyed the economic stability of old industrial centres like Dacca, Cawnpore, Murshidabad, Madura, Agra, Delhi and Amritsar and did nothing to balance the loss by the creation of new industrial areas. And finally, it so muddled up the economic evolution of India that the country could not get out of the "economic" transition which savants like Sir Theodore Morrison saw early in the present century. It did all that was expected of an unco-ordinated transport system; it did nothing which a well-conceived transport system would do to assist the evolution of a sound economic system in the country.

Thus we got our cluster of "distributing centres". Calcutta is a distributing centre for hides and skins and jute;¹ Madras is a distributing centre for groundnuts, flue-cured and other types of tobacco and tanned hides and skins; Rangoon is a distributing centres for rice, timber, oil, pig-lead and paraffin-wax; Karachi is a distributing centre for the Punjab and Sindh wheat; Cawnpore with its population of 244,000 is a railway junction and a *convenient* distributing centre for the imports of Manchester piece-goods, hardware and machinery from Bombay and Cal-

¹See Handbook of Commercial Information for India, 1937, p.110.

cutta, while its factories produce "very large quantities of leather goods, cotton textiles and tents."¹ Delhi is a clearing house for cotton, silk and woollen piecegoods for the Punjab, the western districts of the United Provinces; Amritsar is a distributing centre for hides, skins and grains; Lahore is the chief "trading centre" for the agrarian products of the Punjab and is fast losing its place as a main distributing centre for the Punjab since the development of the Canal Colonies; Lucknow is a distributing centre for the rich agricultural products of Oudh; Dacca is a distributing centre for hides and skins. Undoubtedly, some of these distributing centres contain textile factories, oil-mills, rice-mills, and small factories for the manufacture of leather goods and some local manufactures like copper and brass-ware but their importance in the economic system of the country as distributing centres outweigh their significance as industrial areas.

"My great point is this," said Sir Arthur Cotton in 1872, "that the railways have completely failed; they cannot carry at the price required; they cannot carry the quantities; and they cost the country three millions a year and increasing to support them."² They indeed cost the country "more" than "three millions a year"—they gave the country the bane of an unco-ordinated "technical" evolution. The effect of such a transport system on the "progress" of the country was inevitable. In 1918, the Indian Industrial Commission could not help recording: "The same lack of transport facilities leaves valuable and extensive areas of forest, especially in Burma, in Assam, in the Himalayas and in the hilly tracts of the west coast, very largely unexploited, while quantities of timber are imported by sea from distant countries."³ This is only symbolic of the damage that an un-planned transport system has done to the economic stability of the country. .

Nor can one underestimate the importance of transport for the rural areas of the country. "Efficient Communications," says the Royal Commission on Agriculture, "exercise an immediate effect on the factor of time which is an essential

¹See Opt. cit. p.110.

²Romesh Dutt's India in the Victorian Age, pp.360-61.

³Report, p.368.

element in the price factor. Time assumes a special importance where the disparity in prices tending to induce movement is one that fluctuates so rapidly that the margin may be narrowed and the transaction rendered unprofitable after the good have been consigned; or where the extreme perishability of produce renders rapid transport essential or imposes prohibitive charges for refrigeration and other special treatment...In short, the true income of the cultivator is largely dependent on the efficiency of communications."¹ and it opened its report with the declaration that "most of the 500,000 villages have not yet been touched by metalled roads or railway."²

If the evolution of railway transport stayed the wheels of economic progress, the evolution of road transport did nothing towards securing economic stability for the country.

Road construction in India was at no time in the history of the country considered as part of a comprehensive scheme of economic reconstruction: roads were built, like the old Roman Roads, more for military or strategic purposes than for the purpose of facilitating movement of men and goods. "Until 1854-55," says the Royal Commission on Agriculture, "such main roads as existed in India were in charge of military boards, one for each presidency." India is a land of "trunk roads"—roads built for the purpose of military defence and administrative co-ordination—the earliest such roads dating back to the time of Sher Shah in the sixteenth century. In 1855 roads passed under the management of the Public Works Department. "It was about this time," we are told, "that the influence of railways on the construction of roads began to make itself felt. As the railway system extended, it became increasingly necessary to build roads to feed the railways rather than to compete with them."³ Thus an anomalous railway system begat an equally anomalous road transport, even as it generated a reactionary urban evolution. The tragedy of the *technical evolution* of India in the 19th century was that the entire system was essentially distributive in character, involving a terrific tech-

¹Report, p.370.

²Report, p.5.

³Report of the Royal Commission on Agriculture, p.370.

nical strain on the economic system which could not, obviously, stand it.

Naturally, we have in the country four ancient marching roads: the Grand Trunk Road from the Khyber Pass to Calcutta, the trunk road which connects Madras with Bombay, the road which connect Bombay with Calcutta and the trunk road which runs between Bombay and Delhi—a framework which is laboriously filled in by auxiliary transport system. No one even in his maddest moments would call this an *economic* transport system, i.e., calculated to develop the economic resources of the country. "As one would expect," says an unofficial handbook, "the worst served regions are Rajputana, Sindh and parts of the Punjab, on the one hand, and Orissa and Bengal on the other, the former owing to its aridity and sparse population and the latter because of the numerous unbridged and mostly unbridgeable waterways which dissect it; in addition of course there are numerous other parts of the country such as the lower Himalayas, where the difficulties of the grounds provide obvious reason for the dearth of communications."¹

"If agriculture and industry," writes Prof. Coatman, "are the body and bones of a national organism, communications are its nerves."² In India as a consequence of an unco-ordinated evolution of transport, the economic organism is existing without any "nerves". The result is, India has come to possess a strange economic system which Graham Hutton would have called "a catastrophe". Naturally agricultural production is organised not for profit but for subsistence. "Until communications have developed," we are told on high authority, "and organised trading and commercial communities have arisen, the cultivating classes have no incentive, beyond that which may be furnished by a local demand, to produce food grains and other agricultural products in excess of their own needs, and where everyone in the same neighbourhood is growing the same crops, the incentive provided by local demand is small. In such conditions, they are apt to rest content with the production of sufficient to eat and drink and the wherewithal to clothe them-

¹Indian Year Book, 1937-38, p.44.

²India in 1925-26, p.326.

selves....Without the means of disposing of the surplus over family requirements provided by organised trade and good communications, there could be no agricultural progress and large scale farming was impossible."¹ This quotation explains, in broad outlines, the central problem of economic adjustment in the country and must silence the unwarranted criticisms of superficial observers like the late Lord Birkenhead, levelled against the defenceless and inarticulate cultivators of the country that the economic progress of the country is seriously hampered by "the stubborn conservatism of the peasant proprietor....even by an obstinate disinclination to be taught new ideas or to adopt fresh methods."²

A relentless transport system has only given the country a strange network of economic relations. "In a comprehensive survey of the great sub-continent of India," wrote the Royal Commission on Agriculture, "one cannot but be struck by the apparent diversities it presents...Its population comprises many different elements and almost every stage of social development is represented....But there are certain economic and social conditions which are common to almost the whole of India. There very few large cities or urban areas; agriculture is by far the most important industry; the typical unit of cultivation is a holding of a few acres; the financial resources of the cultivator are slender. In rural areas, a resident middle class is almost entirely absent; illiteracy is the rule and not, as in western countries, the exception; status rather than contract is the cement of a social structure which, almost everywhere, has considerable elaboration in the village community."³ These are positive symptoms of what Mussolini would call "economic servitude" imposed by an economic system which forces the country to export food-grains and raw materials to keep its imports of manufactured goods.

"A nation which exchanges agricultural products for foreign manufactured goods," said Frederick List in the 19th century, "is an individual with one arm."⁴ What would he have said of India which has either to export food grains or grow non-food crops in her limited land

¹Report of the Royal Commission on Agriculture, pp.6-7.

²India in 1925-26, p.353.

³Report, pp.477-78.

⁴National System of Political Economy, p.130.

resources to keep up the volume of her foreign trade which has been imposed on her by the economic evolution of the past century? If in England, as Fay claims, "the railway created new business... forthwith cheapened considerably the cost of carrying traffic... regulated the course of commerce.... increased the mobility of population, increased the enjoyments and health of the people,"¹ in India the railways created, what Dutt was fond of calling, "an economic drain" of agrarian products to maintain an inexorable foreign trade. The *kismet* in India's economic evolution has been the Indian transport system.

"A main cause of the disastrous consequences of Indian famines and one of the greatest difficulties in the way of providing relief in an effectual shape," wrote the Indian Famine Commission of 1880, "is to be found in the fact that the great mass of people directly depend on agriculture, and that there is no other industry from which any considerable portion of the population derives its support."²

"The cultivators of India," wrote Dutt in 1903, "are frugal, industrious, and peaceful; but they are nevertheless impoverished, resourceless, always on the brink of famines and starvation."³

"In spite of her rapid industrialisation in the last twenty-five years," records the Official Reporter in 1938, "India still remains predominantly an agricultural country and her well-being greatly depends on the prosperity of her large agricultural population."⁴

These are unmistakable symptoms of economic stagnation. The role played by the Indian transport system in the economic evolution of the country cannot be exaggerated. "It is scarcely necessary to add," says a veteran continental economist, "that just as manufacture is the indispensable complement of agriculture and mining, so transportation is the complement of the preceding operations. What would be the use of stripping bark in the Brazilian forests, of extracting guano in the Peruvian islands, of hunting elephants in South Africa for their tusks, if there were no means of

¹From Adam Smith to the Present Day, p.196-200.

²Quoted by Malaviya in the Minute of Dissent to the Report of the Industrial Commission, p.307.

³Romesh Dutt, India in the Victorian Age, p.xiii.

⁴Review of the Trade of India in 1937-38, p.12.

taking these products to the places where they are needed? What profits it a farmer to have the finest crop in the world, if there is no way to carry it to the consumers?"¹ The romance of the Middle West in America amply testifies to this wise statement.

What did India get from her railway system?

The railways in India achieved three definite objectives: in the first place, as the Royal Commission on Agriculture claims, "railways, together with the steamships, have linked the cultivators of India with markets throughout the world;"² in the second place, they have determined the location of the new industries in the new urban centres; and finally, they have given the rural zones the grave problem of adjusting their subsistence type of production to the exigencies of competitive exchange.

As a result of an internationalised scheme of economic adjustment imposed on the country by the new transport system, India's economic stability was gravely endangered and another factor of uncertainty was introduced into the apparatus of economic adjustment which was as gigantic as the problem of the monsoon—an internationally determined price-structure, which has considerably complicated the problems of rural and urban units of production by imposing on them the necessity of keeping their cost-structure on a competitive basis and by transmitting to the economic system of the country the instabilities of the international market for primary and industrial products.

A summary study of the reports of trade conditions and their reaction to international instabilities will bear out the point.

Of trade conditions in India in 1914-15, we learn, "It was not long, however, before the country began to adapt herself to war conditions. With the allies entering upon an indeterminate period of trench warfare on the Western Front, an enormous demand arose for sand bags. Unlimited quantities of hides were required for the manufacture of boots for the new armies, and, more extensive orders from Japan for raw cotton coincided with an unusually abundant Indian crop... (1915-16). The monsoon

¹Charles Gide, *Principles of Political Economy*, p.76-77.

²Report, p.367.

was not altogether favourable, but the export trade...did extremely well. Fresh records were established in the volume of tea, jute bags and raw wool exported, and large shipments of wheat were made on Government accountThe features of 1917-18 were heavier exports of commodities of vital national importance to meet the increasing demand of the Allies...(1920-21). Due to congested stocks and slackening demands of India's best customers such as United Kingdom, America, Japan and the impaired credit of Russia and Central Europe, the export trade was badly affected. In March 1920 the value of India's exports reached the record figure of £21 millions. In March 1921, the total was only £12 millions...(1921-22). Though the monsoon was satisfactory and freights were enormously reduced, 1921-22 was a year of unrelieved depression.... (1922-23). Two years of favourable monsoon rendered a good turnover of exportable surpluses, but, as, before the war more than 50 per cent of India's exports went to Europe, a return to normal conditions was dependent upon the full recovery of her former markets...(1926-27). This year showed a considerable decrease in the export trade—the reduction being 20 per cent over the figures of the preceding year. The most important factor that contributed to this decrease was the heavy fall in the world price of raw materials, particularly of cotton and jute....(1928-29). Due to the deficiency in monsoon which was particularly unfavourable in the deltaic part of Burma, the exportable surplus of India...was considerably reduced....(1929-30). The full advantage of an adequate and generally well distributed monsoon could not be reaped as the economic equilibrium of the country was seriously affected by the disturbed industrial situation due to unsettled labour conditions."¹ Similarly, this country suffered untold miseries in the great cyclical disaster which overtook the world after the Wall Street collapse, in spite of the fact that "the monsoon of 1930 was good and the total rainfall of the year...was well within 16 per cent...of the normal in most parts of the country. The season was thus favourable and almost all the principal crops showed an increased outturn...."² In spite of her bumper harvest

¹See Handbook of Commercial Information for India, 1937, pp.137-139.

²Review of the Trade of India, 1930-31, p.1.

of rice and wheat, India could not escape from the "phenomenal fall in the prices all the world over,"¹ because of her transport system which had given the country the 'benefits' of international co-operation. "Thus it will be seen," we are told, "that in India and Japan, the fall (in prices) was one of over one-fourth as compared with September 1929, whereas in the case of the United Kingdom, the United States of America, Australia and Canada, it was slightly less than one-fourth. The greater fall in countries like India and Japan is due to the fact, as mentioned above, that the depression has been more intense in the case of primary products, i.e., raw materials, than in the case of manufactured articles."² That is how even with a normal monsoon and a bumper crop, India was not able to maintain the volume of her import trade in tact: "It cannot be denied", admits the same authority, "that a great portion of the fall in the value of imports was due to the fact that the Indian consumer has been unable to buy the imported commodities because of his depleted purchasing power."³ This is the nemesis of an economic evolution which has exposed the economic system of India to the instabilities of an international market. Time and again we are to be told, in spite of the normal functioning of the *natural factors*, like the monsoon, that "the phenomenal fall in the value of agricultural prices"⁴ as a result of agrarian production in West Africa, Middle West of America, Argentine Republics and Russia, "have hit the (Indian) ryot badly", and that the Indian cultivator must wait till "a succession of poor harvests and the restrictive policies followed by producers of some primary commodities," abroad, have "greatly improved the statistical position of most of food-stuffs and raw materials"⁵ before he can earn his *living margin* from his productive processes. Is there any wonder then, if the rural population of India devote more than seventy-five per cent of the land resources of the country for the production of the urgent needs of their families, instead of growing commercial crops on their farms as suggested by the agricultural and economic experts haran-

¹Ibid, p.3.

²Review of the Trade of India, 1930-31, p.5.

³Ibid, p.9.

⁴Ibid, p.9.

⁵Review of the Trade of India, 1937-38, p.13.

guing from their comfortable arm-chairs in the new urban areas?

There is no doubt that both the agriculturists as well as the industrialists of India are greatly handicapped by having to keep their cost-structure in conformity with an international market. The agriculturists cannot keep their cost-structure adjusted to the cost-structure of their competitors in America, Argentina, West Africa and Russia, without invoking technical improvements in the methods of agricultural production; and they cannot improve the technique of rural production without sufficient command of land resources which would involve the liquidation of the microscopic farm. And that cannot be achieved without adequate rural exodus.

Similarly, in industries, the problem of maintaining the cost-structure at a competitive level is indeed immense. Even a slight deviation in the cost-structure in industries would mean the loss or at least contraction not only of the foreign markets but also of the home market itself—especially when countries like Japan are ready to dump goods into the country irrespective of their own cost-structure. That is why industrialisation efficient enough to generate an effective degree of rural exodus has not yet arrived in India; and it can never arrive as long as the Indian industries are forced by the economic *conjunctur* to keep their cost-structure in close conformity with the international market for industrial products. Only a scheme of industrial reorganisation which rescued the industrial structure of the country from the incessant fluctuations of the international market for industrial products, can give the Indian industries a cost-structure which can stand the weight of a higher wage-level. Indian industrial structure is handicapped not only by the exigency of keeping its cost-structure *competitive* but also by an economically anomalous localisation which the evolution of transport has precipitated. That is how we come to hear of the *depression* in the older units of the cotton industries which have not only to face foreign competition both in the international market and the home market for their products, but also have to overcome competition from the newer and more efficiently localised units of the industry in the country itself. Surely in such a situation the older units cannot

maintain wages at a higher level than they are doing at present unless a drastic transformation in the conditions of the foreign and home markets gave them the necessary margin. And as long as the industries are not able to maintain their wage-level in close correspondence with the fluctuations in the volumes of real income, we in this country cannot avoid labour troubles. And we are told of the cotton industry—the biggest branch of our national industrial structure—“These labour troubles are rather disturbing to the progress of the industry and unless amicable relations are established between the employers and the employees, the future of the industry must naturally be affected adversely.”¹

Not only has the linking of the slender economic system of India with the international economic order imposed on the country the burden of competitive adjustment both in agricultural and industrial production with a world market, but it has also destroyed the structure of barter adjustment which had, for centuries before the advent of the British, given the rural areas economic stability and cultural solidarity. That is, perhaps, what the Royal Commission attempted to emphasise when it declared: “Complaints are heard of the decay of corporate work for the good of the village...it is true that the factors making for change which we have indicated are growing and that they are all unfavourable to the maintenance of the isolation of the Indian village.”² But has this “change” in the cultural and economic status of the village in the new economic and cultural structure of the country brought any good either to the villages which have lost their economic and cultural stability or to the country as a whole? “The participation” of the Indian cultivator “in the wider life” of the world has only brought him a long spell of depression which has been undermining his financial stability since the last quarter of the 19th century; it has forced on him and his small farm the framework of an economic adjustment which has completely destroyed his confidence in his profession by emphasising the relentlessness and inexorability of an internationally determined price-structure. The havoc wrought by the imposition

¹Review of the Trade of India, 1937-38, p.36.

²Report, p.498.

of a competitive economic adjustment on an essentially subsistence-type of rural production has been so great that even the Royal Commission on Agriculture cannot help admitting: "There are many directions in which the villager will gain much from participation in the wider life of the province... That there may be losses as well as gains we do not deny. It should be the aim of all those who wish to do him service to prevent these losses and to expedite these gains."¹ But how? By widening the circle of competition? By accelerating a movement towards the emergence of expansive enclosures? By increasing the efficiency of his productive processes and guaranteeing him a highly competitive cost-structure? By widening the market for his produce by protection and subsidy? In short, are we to *expedite the gains* of a *laissez faire* economic system to the agriculturists by, what the Royal Commission vaguely called, creating an *enviornment* "in which the cultivator will be willing to receive and to put to the best possible use the advice and help which the agricultural and other departments (of the Government of India, no doubt,) are in a position to place at his disposal."²

The creation of such an enviornment would mean the final and rapid dissolution of the civilisation of the entire country. It would also imply the reconstruction of the entire system of transport and production to suit the behests of a competitive system of economic adjustments. Is the country ready to face and sustain such a gigantic scheme of reconstruction? Even if it were possible to carry the country through such a reorganisation of the cultural and economic systems, could we eliminate from our New Order the forces making for incessant change and adjustment? How do we propose to keep the producers of primary commodities and the manufacturers of industrial goods in a state of relatively stable adjustment under a competitive system without generating distress in the community? Finally what remedy have we for the enormous cultural and economic friction which the process of bridging the gaps in the time-lag between each set of such adjustments inevitably gene-

¹Report, p.498.

²Report, p.14.

rates? Has not the *Economist* pointed out that under a competitive system, "the re-adjustment between the primary producers and the manufacturers," which cyclical fluctuations in the economic system based on individual initiative render necessary, "would involve a great deal of time and possible economic friction?"¹

All that the country got out of the economic evolution of the past century is a mere *technical change* which has precipitated a major crisis in the economic life of India. We have got urban areas which have done nothing to give India an industrial civilisation; the new transport system has reduced them to mere "distributing centres" which are nothing more than *disturbing centres* in the economic life of the country. Of rural areas under the new dispensation we can only say that they have been landed in a predicament where they have lost all stability and solidarity which had given the rural zones such power of resistance through all the chops and changes of Indian history. They are to-day left to face the gigantic world markets in primary commodities and liquidate their products in a highly competitive circle of change. The greatest factor responsible for the break-down of the economic self-sufficiency and cultural self-government of the rural zones of the country being the railway system.

In this background no one can read without severe mental distress Dr. Anstey's obiter dicta: "It is the railway system that, more than anything else, has stimulated foreign trade, specialisation of production and the beginning of the economic transition in India....Above all the railways have tended to break up the traditional social organisation, and thus prepare India to take her place as an integral part of the present-day interdependent world-wide system of industry and trade."² If the transport system of the country had given India a co-ordinated economic system and prepared it for withstanding the forces of international competition in a "world-wide system of industry and trade", no one would have regretted the disintegration of the "traditional social organisation" or of the old economic system of the country. To expect that a railway system, conceived more as an instrument of ad-

¹Quoted in the Review of the Trade of India in 1930-31, p.3.

²Economic Development of India, p.153.

ministrative and strategic co-ordination, according to Lord Dalhousie himself, than as any coherent part of the economic evolution of the country, would perform the task of *economic stabilisation* of the rural and urban zones of India by "specialisation of production" is something which ordinary mortals cannot understand.

If by "specialisation of production" we mean the raising of commercial crops on our land-resources, it must be at once said that the railways have failed in their task: the extent of commercialisation being almost negligible in rural economy and most of the rural zones being outside the reach of the transport system. If by *specialisation of production* we understand production of industrial goods in urban areas created after the main framework of the railway system was fairly filled out, we can only say that if the older industrial units of the country are to-day landed in a first class crisis of keeping their rigid cost-structure responsive to fluctuations in highly competitive foreign and home markets, the credit certainly must go to the railways which have been responsible for the *technical localisation* of the earlier units of our industrial structure.

As a result of our *participation* "in the present-day interdependent world-wide system of industry and trade," with our "inefficient" productive apparatus, we have certainly precipitated a major crisis in the economic life of the country. Our technique of rural production is such that we cannot hope to survive in an international market for primary goods against agrarian producers from other parts of the world with larger units of agrarian production and with more efficient and up-to-date processes of agricultural production which go on progressively reducing costs. Each technical advance in agricultural production, each step in the application of better manures or in increasing the productivity of land abroad heralds a major crisis in our rural areas which have to maintain a relatively rigid cost-structure, which must go on progressively reducing the extent of the international market which India can profitably exploit. Thus in linseed India lost a major portion of her foreign markets, except in the United Kingdom and Australia, to Argentina. In France, her share in the linseed market fell from 41 per cent in 1913, to 3 per

cent in 1937; and in Italy, from 57 per cent in 1913, to 3 per cent in 1937; in rapeseed also Argentina and Rumania emerged as severe competitors to India in the European markets. Thus India's share in the rapeseed market in the United Kingdom itself fell from 36 per cent in 1913, to 8 per cent in 1935; in Belgium, it fell from 72 per cent in 1913 to 7 per cent in 1935; in Italy, it fell from 95 per cent in 1913 to 9 per cent in 1936 but recovered to 75 per cent in 1937; and in France, it fell from 90 per cent in 1913 to 58 per cent in 1937. Similarly in groundnuts: while India held 58 per cent of the French groundnut market in 1913, in 1937, India was able to retain only 28 per cent of the market, the rest being covered by West Africa and other countries.¹

In the year 1931, for a total of 153,916,050 actual workers in India, only 4.4 per cent were engaged in industry and mining, 2.9 per cent in trade and transport, 0.6 in public force and public administration, 0.7 in the liberal professions, 3.1 per cent in domestic services and 2.2 per cent in undefined occupations.² If there has been no greater degree of industrialisation than these figures reveal in India, it is due, not to the cultural and social rigidities which hamper free movement of labour and capital, but to the economic factor of a rigid cost-structure which places serious limitations on the stature and stability of the industrial structure which has to keep its cost of production competitively "efficient."

The tragedy of industrial evolution in India is obvious. In India the industrial structure had to be erected at a time when the industrial structures of other countries had reached their full stature in the international market. Naturally the effect of industrial evolution on the economic system of India was the reverse of what it was in the days of the industrial revolution among the Great Powers. "For the hundred years which preceded the outbreak of Great War," writes Prof. Robbins, "the economic system had not at any time shown itself to be in serious danger of grave breakdown. It was a period of unprecedented change. The external conditions of economic activity were in process

¹For a more detailed information on the subject the reader is referred to the Review of the Trade of India in 1937-38, pp.248-49.

²See Sir M. Visvesvaraya, *Planned Economy for India*, p.13.

of continual alteration. In the old world the advent of steam and machinery was changing the nature and structure of manufacturing industry. In the new, the coming of new modes of transport was opening up vast areas, hitherto undeveloped, both as sources of food supply and raw materials, and as markets for the products of the manufacturing processes. The population of the world, whose normal state there is reason to suppose to have been more or less stationary, was growing rapidly. The aggregation of people into large cities, dependent for the most elementary necessities of life upon supplies produced at the other ends of the earth, proceeded at a rate unknown in any earlier epoch. Yet the economic mechanism was kept adjusted to this complex of change without anything like the present dislocations, and, year in, year out, turned out what, for a substantial proportion of the increasing population, has been regarded as the basis of an increasing standard of real income."¹ When India started her industrial evolution, "the external conditions of economic activity" had become practically stabilised; "the advent of steam and machinery" had already changed the "nature and structure of manufacturing industry" all over the world; and the internal as well as the international markets were flooded with industrial products of powerful competitors. In the country itself, the "coming of new modes of transport" had only intensified competition in the home markets without doing anything to "open up vast areas, hitherto undeveloped as sources of food supply and raw materials," nor was anything done to accelerate a movement towards "the aggregation of people into large cities." In fact, India on the eve of her great economic evolution in the 19th century was in the same position as England in the present century—a victim of, what a Committee of Economists under the Chairmanship of Sir William Beveridge was pleased to call, "three important changes of conditions."²

Like Britain in the present century, India in the 19th century was handicapped by "the apparent worsening of the general economic position" of the country as a result

¹Professor Robbins, *The Great Depression*, pp.1-2.

²See *Tariffs the Case examined by a Committee of Economists*, p.2.

of the adaptation of the economic system from "war-time" conditions of the mid-nineteenth century and earlier epochs to the peace-time conditions of the Victorian Age in India. In the second place, like Britain in the present century, India was the victim of "the growth of economic nationalism", in the sense that her markets both for primary and industrial products were seriously limited by her inability to keep her cost-structure *competitive*. In the third place, she was the victim of a "growing interference by the State with individual freedom in fields other than that of foreign trade,"¹ which in the case of India took the form of a transport system which did nothing to *economically* co-ordinate the country. Thus in India the new transport system only succeeded in effecting, what Prof. Robbins would call, "weakening of the permanent flexibility of the system,"² of economic adjustment—which it achieved by linking the industrial structure of India with the international markets which imposed on the industrial system the necessity of keeping their cost-structure internationally competitive. Obviously, the industrial system of the country could not maintain an *attractive* level of wages under a competitive cost-structure nor could the industrial units claim "profits" which would justify a country-wide economic "revolution."

If India is to maintain even the semblance of economic stability in a competitive world, she must, as a famous committee of economists said of Britain, "slough off bad habits and keep young in the changing world."³ It is not easy for an old country like India, with an intricate structure of social and economic rigidities imposed by a long social and economic evolution and complicated by the imposition of a competitive system of economic adjustments on a subsistence type of economy, to keep "competitively" young and internationally efficient in an incessantly changing world. Such a change could be achieved only by the entire reconstruction of the processes of production not only in agriculture but also in industry which would keep the Indian cost-structure internationally competitive and also incessantly dynamic. This means that

¹See Tariffs, the Case Examined, pp.2-4.

²The Great Depression, p.5.

³Tariffs the Case Examined, p.243.

nothing short of a major economic revolution hand-in-hand with a major cultural revolution could place India "in the van of all movements towards international" competition and co-operation. Such a reconstruction, it is obvious, cannot be achieved without first attempting a complete dissolution of all the existing cultural and social rigidities and reducing Indian society into a flexible structure to suit the general scheme of cultural and economic adjustments abroad. Even then, we cannot boldly prophesy economic stability for the country; for the simple reason, competitive efficiency in the international economic order implies that the country with its economic system must be kept in a state of *constant* economic adjustment with the international markets—which can only mean that our national economic activity must, in the ultimate, be regulated by the *uncertain* factor of world change. Otherwise, we should not be able to avoid periodical fits of cultural and economic maladjustment which have been the darkest factor of world evolution in the past quarter of a century.

All this drives us to the inescapable conclusion that we must attempt to reduce the threatening uncertainty of all economic adjustments even if the process means the deliberate suppression of all technical progress and implies economic restrictionism involving the drastic control of the instruments of production and exchange.

Obviously then, the problem before the country to-day is, not that of setting up new zones of "technical progress"—which would be an additional factor operating towards the setting up of new zones of economic rigidities, but the dissolution of the existing zones of economic distress with the least possible disturbance to the prevalent cultural and social structures.

Such a plan would mean a three-fold reconstruction—the reconstruction of the machinery of agricultural production which would attempt to increase the productivity of every sod of earth in the country in a general scheme of nation-wide food-conservation and also the elimination or control of the forces which operate to reducing the price-margin of the rural producers and make for gross instability in rural economy; secondly, the reconstruction

of the entire industrial structure of the country so as to effect a better localisation of industries and at the same time escape the inevitable rigidities of industrial urbanisation with its immense social and cultural readjustments, and also the extrication of the industrial cost-structure from the instabilities of an internationalised market, not through the recognised channel of protection or subsidy or the quota system—but through regionalisation of the secondary markets in a scheme of zonal economic conservation; and finally, a reconstruction and control of the transport system in a comprehensive scheme of economic co-ordination.

Before we proceed to outline the plan of such a reconstruction, it is essential that we surveyed the main problems of adjustment both in rural and urban areas of the country.

CHAPTER V.

PROBLEMS OF RURAL ECONOMY.

NEARLY a century ago, Montgomery Martin refuted, with vehemence, the suggestion that India is an agricultural country: "I do not agree", he declared, "that India is an agricultural country; India is as much a manufacturing country as an agricultural; and he who would seek to reduce her to the position of an agricultural country seeks to lower her in the scale of civilisation."¹ Subsequent evolution has reduced the country to an economic position where she has ceased to be either an agricultural or an industrial country. "Almost everywhere," we are told on high authority, "it would appear that, from time immemorial, the people have lived in small villages, the mud houses of which are huddled together in a more or less compact area situated in the midst of the fields which provide the means of livelihood to their occupants. The farms and farmsteads which are so prominent a feature of rural life of western countries are entirely absent...In the south and east, the average holding is about five acres and elsewhere not more than half the holdings exceed this limit...Except in the north-west, the whole country is dependent on the monsoon and all major agricultural operations are fixed and timed by this phenomenon...The urban population is relatively small...and the demand for agricultural produce for final consumption in the towns is thus small in comparison with the whole volume of production."² This is not the picture of an agricultural country, but that of a country with a subsistence economy—where three hundred and sixty million people are mere gleaners off an exhausting land.

Such an economy must naturally leave its indelible mark on the organisation of agricultural production. In a subsistence economy what is aimed at is not efficiency in production, but sufficiency of output. Agricultural economy becomes seriously handicapped by a three-fold movement: sub-division and fragmentation of agricultural hold-

¹See Romesh Dutt, *India in the Victorian Age*, p.114.

²Royal Commission on Agriculture, Report, p.5.

ings, immense pressure of population on the land resources of the country and the technical limitations to the proper exploitation of the country's land-resources imposed by the exigencies of the scramble for land. All the three handicaps are present in the country in a conspicuous degree.

If the economic evolution of India had been planned with a view to make India an agricultural country, the landscape of the country would have resembled the landscape of Australia or of Canada. As it is, the entire sub-continent of India does not even present the prosperity of a small zone in the United States of America like California of which we learn from Chapman, "the rapid development of the spread of irrigation and of intensive cultivation, and the increase of small farms during the last few decades have made California an agricultural region and a great fruit producing area. Staple products have changed with increasing knowledge of climatic conditions, of life-zones and of the fitness of crops. Irrigation has shown that with water, arid and barren plains, veritable deserts, may be made to bloom with immense wealth of semi-tropical fruits."¹

The position of India is not even happy regarding irrigation itself as the following table clearly demonstrates.

Area Irrigated—1934-35.

Net area sown		Area irrigated.				
Acres		Canals				
		Govt.	Private	Tanks	Wells	Other sources
226,979,899		22,403,709	3,667,351	6,212,823	12,527,141	5,722,532
Total area irrigated		50,533,556 acres.				

This clearly testifies to the important part that monsoon plays in the agricultural economy of the country. Because of the lack of continuous supply of water throughout the year and of other facilities which are essential for any successful exploitation of the land resources of the coun-

¹Encyclopaedia Brit. 14th Edition, Vol. 4, p.593.

try, Indian agricultural production has to face immense technical difficulties. Thus we find neither variation of crops nor intensive cultivation; nor do we find any attempt at organising the rural market on the part of the producers themselves. "No organisation for trade and commerce could group up," says the Royal Commission on Agriculture, "without the production of a surplus over the local demand and no individual, village or province would continue to produce such a surplus in the absence of the machinery of trade and commerce essential to ensure for it a reward commensurate with the labour expended."¹

Naturally where organisation of agricultural production is rendered unprofitable because of the absence of an efficient machinery of exchange, the only way open for the cultivators is to grow their own family requirements on their farms. This kind of subsistence economy has brought many evils in its train, not the least being: hereditary indebtedness, subdivision of land and fragmentation of holdings, and finally economic despondency born of the desperate attempt of the small farmer to liquidate his inflexible cost-structure in a highly competitive circle of exchange.

Naturally the Indian economic landscape is different from the landscape presented by any other agricultural country of the modern world. "With no large towns, no industrial population on the modern scale and little or no means of export overseas," wrote the Royal Commission on Agriculture, nearly a decade and a half ago, "the production of food grains and other agricultural produce was perforce confined to the demand for local consumption. When favourable seasons yielded a surplus, this was stored. Such stores were common, for the surplus could not be sold and storage was the obvious means of disposing of it,"² till the new transport system flung the country into the orbit of an international system of exchange. Similarly, the Indian Industrial Commission writes, "In earlier times, every village not only grew most of its food, but either provided from its own resources or obtained from close at hand its few simple wants. Its cloth, and often the raw material for it, its sugar, its dyes, its oil for food or light-

¹Report, p.8.

²Report, p.7.

ing, its household vessels, and agricultural implements, were manufactured or produced either by the cultivator himself or by the village craftsmen, who were members of the village community and were remunerated by a share of its produce...The courts of Indian rulers had always attracted to themselves the surplus grain of the countryside to feed armies officers and dependents of the Chief."¹

The self-sufficient economy which the village communities to this day are maintaining in some parts of the country can only be properly appreciated if we carefully turn over the ponderous pages of the Report of the Royal Commission on Agriculture. "In all but the smallest villages," we read, "there are one or more skilled artisans, carpenters or ironsmiths, who provide and repair the simple agricultural implements, bullock gear and water lifts... Where water is readily available, each village has its own supply and, in general, it may be said that, where means for irrigating the fields are within the power of the people, such irrigation is to be found. Firewood is usually obtained from the village waste or the fields; where fuel is scarce, dung cakes are of necessity employed for cooking...Seed is saved by the cultivator from the harvest or bought from the village shop; cattle are bred within the village or bought from some near neighbour or wandering grazier; the sire is frequently loosed as an act of piety or merit. From generations past, the occupations of the people have been pre-determined by something of the nature of an occupational caste or guild system. The more remote from road or town, the more self-sufficing is the village in all the requirements of its people from birth to death."²

On this delicately balanced structure of economic adjustments were imposed the uncertainties of a world-wide market for agrarian products.

The revolution in the methods of transport in the wake of the consolidation of the British power in India in the second half of the 19th century inaugurated a new economic regime in the country involving the linking of the Indian primary and secondary markets with world markets, the initiation of the Indian economic system into

¹Report, p.2-3.

²Report, pp.5-6.

the mysteries of international price-movements and finally, the genesis of a foreign trade involving the peculiar movement of primary products from India to the markets of the world and the influx of foreign goods into the Indian markets. All this meant the transplantation of the old regional economic life by an economic order which linked up India to the international economic system involving certain major periodical fluctuations and the impairment of the economic solidarity of the country born of the irreconcilable "adjustment" between a subsistence type of production and a highly internationalised and competitive market in agrarian products.

The first effect of the linking of the Indian markets with the world markets was the breakdown of the economic isolation of the country—which, whatever its specific shortcomings, had at least guaranteed the country economic solidarity and political stability throughout the chops and changes of Indian history. For centuries, India had enjoyed the security of a "closed economic system" or rather of a conglomeration of closed economic rural units which had ensured for the regions and zones which they served a certain degree of insularity against economic instabilities abroad. Each village, each town and each zone enjoyed relative economic stability which comes from a system of economic adjustments which never admitted the institution of a competitive price-structure. The greatest single disturbing factor in the economic life of modern communities—money—was thoroughly sterilized; barter adjustment was the means of economic administration in all the village communities; and a corporate economic system facilitated the quiet march of *every day life* by emphasising regional economic solidarity and self-sufficiency; no false lights and no vain hopes, and no visions of abrupt riches could penetrate the powerful framework of rural economy. Good harvests meant prosperity and not an anxious period of rapidly sinking agrarian markets as of to-day; and periods of crop-failure were amply provided for by grain storage from years of bumper harvest.

The greatest dread of rural folks was, of course, a long spell of bad harvests threatening the food supply of both man and cattle—and such periods of disaster were few and far between.

The emergence of India, in the middle of the last century, as part of a world economic order meant, in the first place, the dissolution of this economic solidarity which was guaranteed by the "closed" system of economic adjustments. False lights hovered before the agriculturists and in parts which had been opened up by the new transport system, it can be claimed without any controversy, that there was a certain degree of rural exodus. The new regime of *cash* spurred the cultivators to revise their old scales of economic preference. The new system of land-revenue which had to be paid in cash, besides imposing heavy strain on the smooth working of the old mechanism of barter adjustment, sat tightly on the agriculturists, as Romesh Dutt amply testifies. Gradually the corporate life of the village was subjected to terrific pressure by the forces of the new economic system which laid emphasis on competent production and competitive exchange. Obviously the Indian agriculturist found that his economic stability was shattered by the impact of new economic forces which completely upset his scheme of economic adjustments and, cash became the accepted medium of economic administration. Consequently, the Indian cultivator was caught in the gigantic Marshallian scissors of world demand and world supply; good harvest meant no prosperity to him since his produce had to be exchanged in a price system which was reacting to changes in the intensity of supply and demand all the world over; bad harvests meant a prosperity in which he could not share. The result was poverty and distress were in store for the Indian cultivators who had prospered, for centuries, under the protecting walls of a corporate economy in which the price-structure was powerless to inflict its privations

The imposition of an exchange economy and of a competitive structure of economic relations on India's subsistence economy led not only to the most serious feature of India's economic life—the export of subsistence, which Romesh Dutt called the *Economic Drain*—but also to that most annoying feature of India's economic administration under British Domination—"gold hunger". Thus we find that while India imported in 1834-35, merchandise and treasure of a total value of £6,154,129, by 1859, the import of treasure alone

had risen to £12,817,071 reaching the peak figure of £26,557,301 by 1866 for British India alone. This treasure was obviously accumulated, not in the course of ordinary international trade by the export of exchangeable surplus of domestic production over home consumption or of articles of special manufacture, as in old times, but by the sale of subsistence to balance family budgets in the new regime of competitive exchange and cash, and was accelerated by the desire of the people to hold precious metals which assumed a new importance in the scale of preferences of the masses. This import of treasure went on increasing except during the years of dire distress which marked the last quarter of the 19th century as the accompanying table illustrates.

Net Absorption of Gold (coin and bullion) since 1873-74.

(In lakhs of rupees.)

	Five years ending in				
	1873-74	1878-79	1893-94	1908-09	1928-29
Net absorption	1,38	64	2,81	16,00	30,80
Progressive addition to stock	1,38	4,63	51,74	1,58,81	6,51,53
Net progressive absorption	1,38	4,63	51,74	1,52,24	6,25,75

In such a background, with rural corporate economy partially dislocated over vast regions of the country, world-wide exchange and an internationally determined price-structure destroying the last vestiges of economic solidarity in the rural zones, the Indian cultivator foundered deeper and deeper into the Serbonian bog of economic distress.

Thus the last quarter of the nineteenth century stood out, in the history of India's rural civilisation, as the great epoch of greater famines. "The terrible famine," of 1877 wrote Dutt "was a calamity unprecedented in its intensity within the memory of living men. Since the Queen's accession, India had suffered from great famines in 1837, and 1860, in 1866, 1869, and 1874, but no calamity so widespread and so fatal had been known in India within the century...Large villages were depopulated. Vast tracts of country were left uncultivated. And five millions

of people—the population of a fair-sized country—perished...in one single year.”¹ According to Digby, the total mortality involved in the Indian famines between 1854 and 1901 was 28,285,000 which must naturally evoke the statement that, “stated roughly, famines and scarcity have been four times as numerous during the last thirty years of the nineteenth century as they were one hundred years earlier, and four times more widespread.”² The price that the country had to pay for a small place in the economic order of the world was, indeed, more than a “mere pound of flesh”!

“A main cause of the disastrous consequences of Indian famines...”, writes the Indian Famine Commission of 1880, “is to be found in the fact that the great mass of the people directly depend on agriculture...The complete remedy for this condition of things will be found only in the development of industries other than agriculture and independent of the fluctuations of the seasons.”³ The main cause of the famines was the “fluctuations” which the country was exposed to by the imposition of an internationally determined price-structure on the slender subsistence type of rural production. In such a background, not even industrialisation on *competitive lines* could guarantee anything like stability in India’s national economy nor could it help the country to ward off famines and protracted periods of economic depression. If, in earlier epochs, India suffered from frequent famines as a result of the failure of natural factors to function according to schedule, to-day, India is suffering from the effects of a regular working of the natural factors all over the world and the consequent depression in the primary markets.

The Famine Commission pleaded vehemently for “the introduction of a diversity of occupations” as a remedy for famines, but forgot in its enthusiasm, the wider problem of organisation of the primary market, the elimination of undue price-fluctuations and the restoration of the confidence of the cultivator in his process of production. What

¹India in the Victorian Age, p.426-27.

²See Malaviya’s Minute of Dissent to the Indian Industrial Commission Report, p.306.

³Quoted in the Industrial Commission Report, p.307.

was destroyed by the impact of an exchange economy in our rural civilisation was the prudence and foresight of the cultivator. In an earlier epoch, the cultivator had looked upon the produce of land as the priceless treasure which he must conserve at all costs; but an exchange economy which destroyed the structure of barter adjustments also destroyed that outlook of the cultivator and elevated precious metals on the scale of his preferences. The result was India became a bottomless "sink" for the precious metals while her *general economic position* was worsening under the onslaught of the "economic drain" which the new system of economic adjustments generated in the country.

In taking stock of the economic evolution of India, we must not allow our judgment to lose its way in a jungle of eulogism. The revolution in transport and the consequent breakdown of the isolation of rural India had their rewards, but these rewards never adequately compensated the agony that they created or the damage that they did to the economic stability of the country. Here we have one side of the picture. "The effect of improved communications in stimulating production and facilitating distribution," writes the Royal Commission on Agriculture, "has been great. Their influence in another direction is also becoming increasingly marked. The old self-sufficing type of agriculture is in some measure being replaced by a more commercialised system in which the cultivation of 'money crops', that is, crops intended entirely for sale, such as cotton, jute, and oil seeds, is increasingly prominent. The cultivator has begun to look beyond the present needs of the family, and the demands of the market are more and more determining what he shall produce. Improved communications have stimulated that growing organisation of trade and commerce which has proved one of the most important features in increasing the resisting power of the people. They have brought with them the practical certainty of finding a market which has encouraged production and they have made possible that increase in wealth which is reflected in the investment of funds in a multitude of improvements. They have been amongst the most potent factors in breaking the vicious circle of economic stagnation and in setting India on the road of economic

progress."¹ Plenty of plumage is expended by the Royal Commission in dressing up an obviously ugly duckling. In the words of the Royal Commission itself, "It is easy to exaggerate the present strength of this interconnection between an Indian village and the world markets."² The breakdown of the economic isolation of rural India, if it has achieved anything else, has not, at least, set "India on the road of economic progress"; it might have given the country "the stir of new ideas"—"ideas" which have only proved themselves antagonistic to the maintenance of economic solidarity of the rural zones, as the economic history of India in the Victorian and Georgian epochs proves beyond controversy. If India's transport system had been evolved as an auxiliary to the country's economic evolution, if the entry of India into the world markets had been the natural terminus of her competitive economic evolution with production organised to meet world competition in the international markets for primary commodities and if India's "investment of funds in a multitude of improvements" had been the consequence of a real and competent economic adventure in the world's markets and not the liquidation of the accumulated assets of the past or the windfall of reckless speculation in the misfortunes of the masses and if the substitution of food crops by money crops had been the normal process of commercialisation of land exploitation and not the desperate exigency of liquidating a subsistence type of production in a regime of "cash" and "competition"—the Royal Commission's findings would have been a correct estimate of the country's economic position. As matters are, the breakdown in the economic solidarity of the country under the aegis of a competitive system of economic adjustments has brought no prosperity to the land or its people. Nor has the growing influence of the international market on the subsistence economy of the country meant rural affluence. The evolution of the new transport system might have "facilitated distribution" as the Royal Commission claim, but *it certainly did not* "stimulate" production because it was no conscious part of the economic evolution of the country. Thus the new economic order has given India only

¹Report, pp.10-11.

²See *Ibid.*, p.480.

"distributing centres" like Bombay, Madras, Calcutta, Karachi and Rangoon; but it has not given any big industrial towns; nor has it given the country vast tracts of commercial agriculture, nor gigantic irrigational projects covering the length and breadth of the country and bringing water to the sun-scorched parts of India for cultivation, it has set up no grain-elevators, no markets or grain-exchanges working as the nerve-centres of rural production and no banking organisation to irrigate Indian industry and agriculture and to conserve the "wealth" of the country. The economic transformation that India experienced after the administrative co-ordination of the country by the British has only generated two movements: the growing *uncertainty* of agricultural operations due to the imposition of an internationally determined price-system on a slender subsistence type of production, and the *certainly* of the expansion of the rural circle of exchange which implies the gradual but positive complication of rural life and the progressive impoverishment of the three hundred and fifty million people of this country.

The incidence of such an inexorable price-structure on the organisation of agricultural production in the country can hardly be exaggerated. The price of cotton is no longer determined by the failure or success of the harvest in Khandesh or Kathiawar but by the "total" intensity of the production of, and the demand for, cotton in Egypt, America, England, Japan and China. The Indian agriculturist, with his subsistence type of production, is pitted against the cotton producer in America with his mechanised agriculture; the result is an unrelieved depression caused by the vagaries of a price-structure which is as relentless as fate itself.

The following table illustrates how the Indian price-structure is kept synchronised with price-movements all the world over.

Index Number of Wholesale Prices in India and Other Countries.

Base 1929-100

Average	India Calcutta	Bombay	Eng land	U.S.A.	Canada	Aus- tralia	Japan	France
1932	64.5	75.2	74.9	68	69.8	78.3	73.3	68.2
1933	61.7	67.6	75.0	69.3	70.2	78.2	81.6	63.6
1934	63.1	65.5	77.1	78.7	74.9	81.6	80.8	60
1935	64.5	68.3	77.9	83.9	75.4	81.5	84.4	54
1936	64.5	66.2	82.7	84.8	78	85.6	89.9	65.5
1937	72.3	73.1	95.2	90.6	88.4	91.9	108.4	92.7

Within the country itself a relatively uniform price-structure is maintained, as is evidenced below:—

Index of Wholesale Prices for Calcutta, Bombay and Karachi.

Base 1914-100

Year	Calcutta	Bombay	Karachi
1931	96	109	95
1932	91	109	99
1933	87	98	97
1934	89	95	96
1935	91	99	99
1936	92	96	102

which clearly demonstrates that regional variations of production and prosperity have no significance on the composition of the price-structure. The implications of such price-movements are that once the country gets into the grip of an economic depression it finds it very hard indeed to get out of it. A good harvest in Dharwar is not going to mean prosperity to the agriculturist there, any more than a "dry" harvest in Khandesh is going to raise the price of cotton there. The fluctuations, if any, of relative prices are rapidly wiped out by quick adjustments involving inter-regional, and if necessary, international movements of commodities. If in

an earlier regime, the agriculturist experienced a sense of power and economic stability when his granary was filled with the harvest, even a bumper harvest to-day will not leave him with a sense of temporary relief, unless his good fortune coincides with a period of world calamity involving the destruction of agrarian produce by floods and pests all over the world. The Indian agriculturist is thus caught in a vicious circle; in the face of an inexorable price structure, he dare not change his crops or methods of production, and his antiquated methods of production will not lift him from his poverty as long as he has to liquidate his productive processes in a competitive circle of exchange. And so long as nothing is done to break this vicious circle either by revolutionising his methods of agriculture through mechanisation and improvement of the technique of rural production or by sterilising the Indian rural market to international fluctuations, nothing can be done to improve the lot of the Indian cultivator. No amount of research carried out at Pusa or Coimbatore, no Co-operative movement, no legislative measure, no land-mortgage banks and not even an imposing army of marketing officers with foreign qualifications, no Sukkur Barrage scheme can dispel the "Great Depression" that has hung over the country like a blight for over a century.

The second great effect of the imposition of a competitive economy on the rural civilisation of India has been the breakdown, as we have already observed, of the corporate life of the rural zones, involving the radical transformation of the rural circle of exchange—and bringing in its train, a new standard of rural life. The Royal Commission on Agriculture has confessed that it has received complaints about the "decay of corporate" life in the rural parts.¹ It must be admitted that a corporate system of economic adjustment would have been a drag on the economic evolution of the country if India had been, from the advent of the New World Order, evolved on lines of competent production and competitive exchange. But we cannot ignore at this stage of the country's evolution, the disastrous consequences of the imposition of a competitive system of economic adjustments on an economic system which has been purely of the subsistence type. As a direct consequence of the new "economic" transition,

¹Report, p.498.

the rural circle of consumption has been gradually widening while its market (market for rural products) has been progressively contracting. Kerosene oil has taken the place of the old local home-made lighting oils over vast zones of rural India; small luxuries like 'peppermints', matches, cigarettes, knives, scissors and even cheap bicycles have imperceptibly crept into the circle of economic preferences of the rural population; while the further breakdown of the isolation of rural zones by the enormous progress of road transport in the past decade and a half has brought a wider range of "twentieth century" articles like the illustrated magazine, the camera, cheap gramophone and sewing machines into the orbit of rural economic administration. Similarly, ploughs can no longer be made locally even in the bigger rural zones, and most certainly they cannot be bought in any fair for the exchange of corn. How our consumption of the "luxury articles" has grown, though the exact degree of infiltration of these articles into the rural zones cannot be properly assessed, can be seen in the accompanying table.

Consumption of "Luxury" Articles in India

Articles.	(In thousands of Rs.)			
	Pre-war average.	War average.	Post-war average.	1937-38.
Kerosene oil	2,71,16	2,37,57	4,43,76	7,62,14
Other kinds	1,00,87	1,64,73	3,59,10	9,83,31
Metal working machinery and tools	1,49	88	35,08	36,12
Sewing & Knitting Machine and parts	26,35	40,20	51,40	82,00
Cycles and parts	31,35	20,58	47,89	1,18,54
Artificial silk			71,94	4,87,49
Cigarettes	52,74	1,12,79	1,79,68	34,37
Other tobacco	18,33	19,63	43,26	51,11

Under the new economic dispensation all the articles for household consumption—apart from what he actually grows on his farm—and all the services requisitioned by him on his farm and for his family, have to be paid for by the cultivator in "hard" cash. While he has to depend upon one uncertain factor of the monsoon for the success of his agricultural operations, he has to depend upon another uncertain factor—an internationally determined

price-structure—for the successful administration of his slender resources. The Indian agriculturist is thus caught between the legendary Devil and the Deep Sea; he has realised that even a bountiful harvest on his farm is not going to change market prices in his favour, he has come to realise that a bumper harvest is a greater bugbear than a draught!

The problem of economic administration, to the Indian cultivator, is not easy: he has to liquidate his incompetent productive processes in a highly competitive circle of exchange; he has to meet his own expenses and keep up the "standard of wretchedness" at least under a rigid and inexorable price mechanism; he has to pay his debts, his Government dues and all his other obligations, not in grain as he did in the earlier systems of barter adjustments, but in hard cash. Naturally, the cultivator presented to Dutt and the others of his school of thought the spectacle of a pitiable figure on the Indian economic horizon, overburdened by excessive taxation and incapable, for many more years to come, to be anywhere near the van of world progress. Lord Birkenhead saw the Indian cultivator as a "stubborn", "conservative", and "obstinate" peasant proprietor who hugged to his poverty with fatal resignation; even the Royal Commission on Agriculture, which is supposed to have made a special study of the rural problem of the country, has declaimed that the cause of rural indebtedness is to be found in the illiteracy and thriftlessness of the agriculturist; the Central Banking Enquiry Committee¹ found the lack of alternative occupation for the agriculturist as one of the causes of rural indebtedness and many text-books on the subject have not been slow to pour censure on the subjective deficiencies of the cultivator for his economic distress;² while some, like the Decan Ryots Commission, place the whole burden of rural indebtedness at the door of ancestral maladministration of family resources. And all these committees, commissions and students of economic affairs of the country have failed to observe that the primal cause of economic distress in rural India has been the imposition of a competitive system of economic adjustments, involving "cash" and an inexo-

¹Report, p.81.

²See Jathar and Beri, Vol. I, p.287.

able price-structure, on the slender corporate type of production; which forces the helpless Indian cultivator to seek adjustment between his production and consumption in a maze of competitive equilibria. Naturally in such an economic *conjunctur*, the Indian cultivator "labours not for profit, not for a net return, but for subsistence";¹ and with a price-structure which refuses to react to regional economic impulses, with no organisation to secure for him an "adequate" price-margin and with a standard of life composed of commodities and services for which cash must be paid, not even Solomon could live above poverty and privation.

Thus the central problem of India's economic civilisation to-day is the international "market" which is completely impervious to regional economic influences and is determined by international adjustments of production and consumption.

In such a background with a "market" which faces him as a great mystery which he can neither understand nor influence, the agriculturist becomes fatalistic and despondent. There is no incentive for him to expand his agricultural operations or to improve his land or to grow better crops—even if the process could be accomplished with sufficient ease on the technical side, consideration of which we shall presently take up. He attempts to keep his family on his land by producing food crops to escape the tentacles of a competitive system of economic adjustments at least so far as his food requirements are concerned. This explains why more than eighty per cent of the net area cultivated is still under food crops.

Throughout our analysis of India's economic situation we must remember that the troubles of the agriculturist are due to the presence of objective disabilities than to the existence of subjective deficiencies.

What are the objective deficiencies of the Indian cultivator which have hampered a smooth adjustment between his scheme of production and the competitive circle of exchange?

The first is the general scheme of life in the village. In an earlier regime, the village was in a sound economic

¹Royal Commission on Agriculture, Report p.433.

condition. It was not invaded by forces of economic disruption; it had all the protection needed by the institution of a "closed economic system", which only reacted to the regional economic influences and was consequently within the ken of the cultivators; thus the economic system of the village was shut off from the impact of interregional and international economic instabilities. This insularity of economic life in the closed economic rural zones meant, of course, acute distress when the harvest failed causing enormous mechanical friction in the apparatus of economic adjustment in the village; it even meant famines of the deadliest sweep and intensity once or twice in a generation when the monsoon failed over large areas of the country for a succession of years; but it preserved the primary economic unit from the violent fluctuations which are the inevitable heritage of an "open economic system" based on competent production and competitive exchange.

The advent of the "economic transition" seriously damaged the economic structure of the rural zones; the corporate life of the village was seriously challenged by the imposition of a competitive system of economic adjustments on a non-competitive subsistence type of production thereby injecting, what Wicksteed calls, "the bacillus of the disease" of economic civilisation into the rural zones of the country.

It is difficult to assert to-day that there is, in the country, a single village which has escaped this process of economic "civilisation". The country is presenting several symptoms of economic disintegration. The main symptoms are: the substitution of food crops by money crops which compel the hitherto self-sufficient rural unit to obtain the substituted food either from *interregional* or from *international* transfer of food stuffs; the extreme vulnerability of agricultural operations to the fluctuations in an internationally controlled primary market; the widening of the rural circle of exchange without increasing the volume or the efficiency of the rural unit of purchasing power; the economic dislocation of the rural arts and crafts as a consequence of the revision of the rural circle of exchange; and finally, increasing dependence of the Indian cultivator on a "credit system" which is inevitable in an exchange economy of the *individualist* type, where the rigours of

the *time-lag* between production and consumption are intensified in a severe set of "time preference ratios" thus forcing the rural masses into indebtedness and penury.

In such a background, the need for the evolution of a proper economic "conjuncture" in rural India can hardly be overemphasised. This was recognised by the Royal Commission on Agriculture when it stressed the importance of the "far wider problem of creating an environment" in rural India,¹ though it preferred to view the whole situation from a different angle. Our endeavour is to improvise an economic system which would stabilise the economic structure of rural India. The urgent problem before the economic analyst in India is either to plead for the erection of an economic structure which would cause, what Professor Robbins calls, the least "mechanical friction on the smooth working of the economic system"² of the village or to argue for a change in the very bases of the structure of rural production to suit the general framework of an exchange economy based on international competition and "cash". The import of this assertion becomes acutely clear as we proceed to survey the economic position of the country in greater detail.

The first fact which emerges out of any survey of rural India is the enormous pressure of population on the land resources of the country. Our survey of the situation in an earlier portion of this book has revealed the gravity of the problem of adjusting the rate of production of subsistence even to a normally growing population in the country unless we revised completely our processes of production so as to effectively increase the productivity of every acre of our land resources—which cannot be attempted under the aegis of a competitive system of economic adjustments. We have also seen how India cannot emulate the example of the other countries which have solved the problem of adjusting their production of subsistence to the rate of populational increase through inter-occupational or interregional or even international movements of populations. How can India, then, solve the gigantic problem of her vast population? By occupational adjustment as suggested by the Famine Commission through "diversifi-

¹See Report, p.14.

²See The Great Depression, p.21.

cation of industries"? By a rigid control of the dynamics of population through Neo-Malthusian methods?

The solution of the problem of adjusting the rural population to rural resources through "diversification of industries" is a process too long and too agonising to be practically desirable. It implies three fundamental processes: the process of discovering the "optimum population" to be left on our land resources; the process of providing "attractive" occupations for the population which has been ejected from the rural zones and finally, the process of keeping population-growth both in rural and urban areas properly adjusted to adequate rural and urban standards of life. These factors cannot be resolved in the course of a decade or two and there is no guarantee that in the process of "diversification of industries" itself new social and economic factors of maladjustment will not disturb the "equilibrium" which has been so strenuously attempted.

The second solution of dissolving the problem of rural distress by controlling the pace of population-growth through Neo-Malthusian methods offers no end of intellectual amusement and social annoyance. Before we discover the "ideal" volume of population and the *ideal* "standard of life" to be guaranteed to that volume of population, we must attempt to face the social and moral implications of such a scheme. Raising the standard of life of a people by regulating the volume of population implies two fundamental assumptions which cannot be easily resolved: firstly that the volume of production will not suffer from a reduction in the volume of population and secondly, that a definite *rate* of population-growth can long be maintained. In fact the regulation of the volume of population implies regimentation of human impulses, a process beset with insurmountable social and cultural difficulties.

Finally, there ~~is~~ the solution of adjusting the standard of life to the volume of population through a well-conceived plan of conservation of the productive resources of the country—both agricultural and industrial—and stabilising the economic system of the country through the elimination of competitive instabilities.

The seriousness of adjusting the volume of natural resources to the volume of population and the urgency of

keeping the rate of subsistence co-ordinated with the rate of population-growth becomes at once clear as we study the various problems of rural economy which the grave disparity between subsistence and population has created in India.

The most urgent problem that has been created in rural India by this disparity is the problem of the "microscopic" farm generated by the process of subdivision and fragmentation of agricultural holdings. The Royal Commission on Agriculture recognises four distinct types of subdivision and fragmentation of holding: the subdivision of holdings of right holders, the subdivision of holdings of cultivators; the fragmentation of holdings of right holders and the fragmentation of holdings of cultivators. "By subdivision", says the Royal Commission, "we mean the distribution of the land of a common ancestor amongst his successors in interest, usually in accordance with the laws of inheritance, but some times affected by voluntary transfer amongst the living by sale, gift or otherwise", and Fragmentation "refers to the manner in which the land held by an individual (or undivided family) is scattered throughout the village area in plots separated by land in the possession of others".¹ There are two factors which tend to accelerate the process of sub-division and fragmentation of holdings; firstly, the increase of population depending on the country's land resources and secondly, the growing burden of rural indebtedness which enforces the transfer of holding-rights to non-agriculturists. Thus in the village of Bairampur in the Punjab in the period of between 1885-86 to 1918-19, the number of non-agriculrist owners, such as money-lenders, had increased from 3 to 18 and their plots brought down the village average of land owned per cultivator from 4.9 acres in 1885-86 to 3.6 acres in 1918-19.² The survey of a Konkan village undertaken by Mr. V. G. Ranade revealed that out of a cultivable area in the village of 192 acres, non-agriculturist owned 113 acres or an average of 4.71 acres while 28 agriculturists held 78 acres or an average of 2.85 acres.

So far as the first factor determining subdivision and fragmentation of holdings is concerned viz: the increase of population depending on the land resources of the coun-

¹Report, p.129.

²The Royal Commission on Agriculture, Report, p.131.

try, the process is further aggravated by the break-up of the joint-family system under an individualist regime which the new economic and intellectual civilisation has inaugurated in the country. The result is that between an increase of rural population effected by the natural forces of regeneration and the economic factor of rural indebtedness caused by the imposition of competitive economic adjustments on the subsistence type of rural economy, the problem of subdivision and fragmentation of holdings has assumed menacing proportions. "The agricultural holdings of the Bombay Presidency" says Keatinge "have to a large extent been reduced to a condition in which their effective cultivation is impossible", a conclusion which found an echo in Dr. Mann's famous enquiry at Pimpla Soudagar and Dr. Slater's enquiry in Madras. In the Punjab, enquiry into the problem revealed that 17.9 per cent of owner's holdings were under one acre; 25.5 per cent of the holdings between one and three acres; 14.9 per cent, between three and five acres and 14.9 per cent, between five and ten acres. Dr. Mann's enquiry in Pimpla Soudagar revealed 9 per cent of holdings under one acre; and enquiries in Malabar have revealed that 34 per cent of the holdings in the regions under survey were under one acre.¹

The following table illustrates the gravity of the situation as late as 1921.

Average Size of Agricultural Holdings in India (1921)

Province.	No. of acres per cultivator.
Bombay	12.2
The Punjab	9.2
Central Provinces	8.5
Madras	4.9
Bengal*	5.1
Bengal	3.1
Assam	3.0
United Provinces	2.5
Burma	5.6

¹See "Economic Life in a Malabar Village" by S. Subbarama Iyer.

If the danger of the disintegrated holding is felt less, in general, in Bombay, the Punjab and the Central Provinces than in the other parts of the country, it is because of the presence of two factors in these zones in greater degree than elsewhere; firstly, the relatively low rate of population-growth experienced in these parts and secondly, the presence of alternative occupations. For instance, Bombay with an area of 123,679 sq. miles had only 21,930,601 people living in it according to the census of 1931, while Bengal with only 77,521 sq. miles of land surface had to support a population of 50,114,002. Further in Bombay during the half-century 1881-1931, population increased by 32.8 per cent; while Bengal recorded a population-growth, during the same period, of 37.9 per cent. And the fastest rate of growth of population was experienced by Assam with 79.2 per cent; and Madras closely competed with it with 51.6 per cent. If we compare the area of each province with the volume of population it has to support, we find that Bombay with its 123,679 sq. miles and a population of 21,930,601 is in a happier position than Bengal with the area and population given above, Bihar and Orissa with 83,054 sq. miles and a population of 37,677,576, Madras with 142,277 sq. miles and a population of 46,740,107; the Punjab, with 99,200 sq. miles and a population of 23,580,852 and the United Provinces with 106,248 sq. miles and a population of 48,408,763. Naturally therefore, in a general way, more land resources are available for the spread of the population in Bombay than in the other provinces of the country.

The second great factor affecting the size of agricultural holdings viz., the existence of alternative occupations has favourably influenced the economic situation of Bombay Presidency than in the other less happily situated province of the country. Though agriculture is still the primary industry of the Province giving livelihood to nearly sixty-four per cent of the total population, Bombay has seen greater industrialisation than any other part of India. It is the hub of the Indian textile industry even as it is the main valve of India's export trade; for instance, out of 903,249,122 pounds of yarn spun in the country in 1935-36, Bombay Presidency alone contributed 548,806,151 pounds. Compared to this Madras Presidency had sixty-eight per cent of its total population living directly on

land, while the Punjab had 65 per cent of rural producers, and the United Provinces, 79.3 per cent of its total population on its land resources.

It should not be inferred from the foregoing data, that Bombay is an agriculturists' paradise. What is implied is more a general tendency than a special feature. There are regions in Bombay Presidency itself where subdivision and fragmentation have reached their wickedest limit far worse than in the United Provinces where the average holding is about 2.5 acres per capita of rural producers. In Ratnagiri, in Bombay Presidency, for instance, there are plots which are, according to the Royal Commission, as small as 1/160th of an acre even as there are in the Punjab plots which are a few feet wide and a mile long.¹ The most important factor contributing to this state of affairs on the socio-economic side is the individual scale of social and cultural preference. If in spite of a greater degree of congestion, Madras Presidency is not presenting a more dismal picture than the Punjab, it is essentially due to the operation of socio-economic factors. We are told by the Royal Commission on Agriculture itself: "In parts of Madras, fragmentation has not proceeded as far as elsewhere. The reason for this would seem to be that the joint family system has survived to a greater extent in that province than in any other."²

Whatever the causes for the "disintegration" of agrarian holdings, the effects are unequivocal on the efficiency and structure of rural production. Because of the limits set by the size of farms, the crops grown in any given region crops. Thus out of a total area of 259 million acres sown have to be of a uniform type, and they can only be food in 1935, food crops occupied 213 million acres and other crops occupied 46 million acres as against 211 million acres of food crops and 48 million acres of other crops in 1924-25.³ This is so because with an average largest holding of four acres, the cultivator cannot hope to stand against the giant producers of the Middle West and Argentina in the primary markets of the world.

¹See Report, p.134.

²Report, p.134.

³India in 1934-35, pp.1-2.

The following table testifies to the gravity of the situation in the whole of India.

Area Devoted to Food Grains in India.

Province	Net area actually sown.	Food grains Acres.
Ajmer-Merwara	3,59,186	367,183
Assam	5,988,044	5,099,385
Bengal	23,357,000	22,382,400
Bihar & Orissa	24,131,800	24,932,700
Bombay	32,801,971	24,200,348
Bihar & Orissa	24,131,800	24,932,700
Burma	18,164,499	14,692,070
Central Provinces & Berar	24,668,067	20,519,540
Madras	32,801,820	27,863,829
Punjab	26,504,016	20,661,165
United Provinces	35,662,051	37,483,389

The effect of subdivision and fragmentation of holdings and cultivation on the productivity of land can be seen from the average yield of crops per acre.

This colossal waste of land resources of the country is the result of the technical inefficiency of the methods of rural production which is inevitable when the average size of an agricultural holding is less than five acres.

What is the remedy?

So far only two remedies have been attempted: legislative and co-operative. The Bombay Small Holdings Bill of 1927 is typical of the legislative remedy for the elimination, or at least regulation, of the process of subdivision and fragmentation of holdings. In the Punjab Canal Colonies, subdivision is greatly held in check by restrictions on the alienation of land; but the problem of subdivision cannot be liquidated in a legislative chamber any more than it can be solved on the experimental farm of an agricultural college, and as long as land continues to pass from the agriculturists to the non-agriculturists as in the Konkan region of Bombay in settlement of rural embarassment, nothing that the Government or any other agency may do to combat the evil can achieve any measure of success. Nor can one hold out much hope for Keatinge's classic dream of an "economic holding" so long

as the rural population has no other visible means of support but land. In addition to these practical difficulties which confront any scheme of "economic holding" for the country, there are the theoretical difficulties pointed out by the Madras Board of Revenue that the determination of the economic holding "is itself beset with insurmountable difficulties."¹ Nor can the Egyptian custom of leaving the holding in tact in the hands of one successor for cultivation, the other claimants taking a share of the produce, have much hope of success so long as the others have no other means of livelihood. In fact the verdict of all legislative palliatives can be summed up in the Royal Commission's own words: that they are not likely to meet "with favour until more occupations alternative to the cultivation of land become available."²

The co-operative remedy of consolidation of holdings is less open to objection on the theoretical side. Attempts have been made in the Punjab, in the Cattisgarh division of the Central Provinces and in parts of the United Provinces and Baroda State to educate the people in the advantages of co-operation as an instrument to combat the disintegration of holdings. The co-operative experiments in this regard have met with a certain degree of success in those regions where land-fertility is relatively more standardised. But where fertility differs from holding to holding as in the major parts of the country, the experiment has not even been attempted. Co-operative effort at consolidation of holdings has failed over the greater regions of the country because the task of infusing the co-operative spirit among the cultivators who have to administer their slender resources in a competitive market is not easy. We are told on high authority: "To bring the scheme to a successful conclusion, careful education in its advantages and unending patience in attending to every grievance and objection and in combating obstinacy and suspicion are called for. Failures are many; months of painstaking work may be brought to naught by the obstinacy of one individual and, even when the object is ultimately gained, progress is slow."³ "Progress" is slow not because of the

¹See Royal Commission on Agriculture, Report, p.137.

²Ibid. p.138.

³Report of the Royal Commission on Agriculture, p.130.

"obstinacy" and "suspicion" of the agriculturist; but because of the undisputed *general* fact that co-operative effort in any particular department of economic life becomes abortive if the general scheme of adjustment in the country remains fundamentally competitive. The cultivator knows that mere consolidation of holdings will not rescue his farm from the gloom of economic attrition by assisting him to balance his administration of resources in a competitive circle of exchange. As the American Commission has so wisely remarked, "we cannot borrow European co-operative methods indiscriminately, nor should we refuse them indiscriminately. The only wise method is to take what seems best from Europe, adapt it to our conditions and try it out."¹

There is no doubt that in India to-day, conditions are not favourable for the propagation of what the American Commission called "the co-operative spirit". India has come to possess by a process of "economic evolution", an economic system where a subsistence type of production has to be liquidated in a highly competitive rural market. This calls for a more powerful instrument of adjustment than what the co-operative movement can set up in the country. Naturally therefore the co-operative movement has lingered in the country. As the Oakden Committee summarised the general position of the movement in the United Provinces nearly a decade and a half ago, in the greater part of the country "the village society is mostly a sham: the principle of co-operation are not understood: the staff appointed to teach is itself untaught, insufficiently trained and unfit for the work it is supposed to do."² This is so because the co-operative movement has to justify its existence in a *competitive conjuncture*. In such a background co-operation can hardly do anything to check the process of disintegration of rural land resources.

Subdivision and fragmentation of holdings have reached a chronic stage in our country because of the colossal problem of adjusting our land resources to a normally growing volume of population (since the middle of the 19th century) who have no other means of support but land. Dr. Mann's exhaustive inquiry into the problem at Pim-

¹Quoted by H. Calvert in *The Law and Principles of Co-operation*, Foot Note to page 8.

²See Report, Royal Commission on Agriculture, p.449.

pla Soudagar clearly testifies to the growing menace of this problem since the middle of the 19th century. According to Dr. Mann, in Pimpila Soudagar, the average size of the holding in 1771 was 40 acres per cultivator, in 1818 it had dwindled to 17½ acres per cultivator, in 1820, to 14 acres and in 1915, it had dropped to 7 acres per cultivator. "It is evident", the Doctor says, "that in the last 60 or 70 years the character of land holdings has altogether changed. In pre-British days and the early days of the British rule the holdings were of a fair size, most frequently more than 9 to 10 acres, while individual holdings of less than 2 acres were hardly known. Now the number of holdings is more than doubled and 81 per cent of these holdings are under 10 acres, in size while no less than 60 per cent are less than 5 acres."¹

This can serve to emphasise the growing menace of the disintegrating "farm" to the economic stability of the country. Attempts at consolidating agrarian holdings either by legislation or by co-operation have failed. There is not a single province where, even according to the most sanguine report, the average size of holdings per cultivator reaches the tenth-acre limit. Agricultural production and the prospect of the agriculturists cannot be substantially improved unless we can assure for each cultivator holding of a size capable of sustaining scientific agriculture, and capable of enabling the cultivator to maintain a fairly comfortable standard of life in a competitive framework of economic administration, if we are to retain the bases of our economic civilisation in tact.

We have noted above how further reclamation of land-resources is unprofitable as long as the process of reclamation has to be liquidated in a competitive scheme of economic adjustment. Under a competitive market for primary products, even if we are to reclaim every acre of the land resources of the country, it would not put the Indian cultivator in an economically better position than that which he "enjoys" to-day. For, we must remember that we have to distribute a total land surface which is not cultivated for several reasons to-day, viz., current fallows of 154,260,737 acres with cultivable waste other than fallow of 154,260,234 acres and forest area of 89,239,045

¹Land and Labour in a Deccan Village, Vol. I, p.46.

acres as revealed by the official statistics for the year 1934-35, among the three hundred million cultivators of the country. This would scarcely increase the average holding per cultivator by three acres at the most. Even an agrarian holding of fifteen acres will hardly be sufficient to enable the cultivator to organise agrarian production for a world-wide competitive market for agricultural products. It would ensure neither 'efficient production' nor 'equitable distribution' among the rural producers. The major problem facing the economic reformer in this country is the problem of creating an "atmosphere" where the agriculturist will be able to stabilise himself in the national economic system. That would only imply either a complete transformation of the civilisation of the three hundred million people of India to suit the kaleidoscopic changes of a competitive world-order or the sterilisation of the Indian economic system against the instabilities of a scheme of international competitive adjustment in economic matters. So long as the Indian cultivator has to liquidate his productive processes and administer his material resources in a competitive circle of exchange, nothing can be done to check the menacing problem of the disintegrating farm which has caused no end of rural economic distress.

Nor will consolidation help the agriculturist so long as the shadow of competitive adjustment hovers over his administration of resources. In this background, diversification of industry can only generate another "technical" transition in the country with a different set of instabilities rendering the problem of economic adjustment more involved and agonising.

If individualist ownership of land resources continues unchecked, the time is imminent when India will have to face a major cultural and social revolution born of sheer economic distress. Subdivision and fragmentation of holding which neither legislation nor co-operation has been able to check so far, can only be liquidated in a nation-wide drive for economic conservation which implies the abandonment of the system of competitive economic adjustment and the erection of self-sufficient economic "zones". This would mean, of course, in a mild form, nationalisation of the land resources of the country; and it

must arrive only as part of a gigantic all-comprehensive plan of economic co-ordination involving not only the suspension of the operation of the "competitive" market in the country but also the erection of a structure of *inter-regional* and *intraregional* economic co-ordination under an "economic system" adequately sterilised against economic instabilities abroad. The alternative is nothing short of a catastrophic socio-economic upheaval generated by progressive rural exhaustion. No economic "plan" which fails to appreciate this danger and hesitates in, "incorporating the vast masses of rural dwellers in the living body", of the history of the country is worth the paper on which it is written.

Far more menacing and widespread than the problem of subdivision and fragmentation of cultivation stands the problem of rural indebtedness. Various fanciful and pseudo-scientific estimates have been made of the extent of rural indebtedness and are available for examination. Sir Edward Mclagan estimated the volume of agrarian indebtedness in India to reach the Rs. 300th crore limit. M. L. Darling estimated rural indebtedness of the country to be in the neighbourhood of 600 crores of rupees "very tentatively". The various Banking Enquiry Committees estimated rural indebtedness for the respective provinces for periods ending with 1930. According to their surmise, the total available figure of indebtedness touches the fantastic estimate of Rs. 850 crores.

Taken by itself, the debt of 850 crores of rupees is neither considerable nor alarming—especially when we study the staggering figures of war-debt which some countries have accumulated in the past quarter of a century. But we must not commit the mistake of studying the agrarian debt of India apart from its rural context. The greater volume of this debt is incurred, not in the ordinary course of agrarian business to tide over the time-lags between the various stages of agricultural production and rural consumption, but to fill up the gap between the rigid cost-structure of rural production and the price of agrarian products in the competitive market. And the full burden of this debt must be borne by the agriculturist

whose land is subdivided and split up into fragments which even agricultural experts cannot farm at a profit. Consequently, the burden of agrarian indebtedness is far heavier in India than in any other agricultural country of the world. Those who have to shoulder the rural debt in India are the indigent cultivators who toil on their farms not for a profit but for mere subsistence. The volume of rural debt in India and the pace at which it is growing can only be explained by the inability of the Indian cultivator to keep his cost-structure flexible, which he cannot do without seriously damaging the health and efficiency of his family who are already existing on a "rigid standard of wretchedness". In this connection it is amazing to read of the factors which are supposed to have contributed to the existence of rural indebtedness in the country. Text-books on the subject give us several factors as being responsible for the huge volume of agricultural debt like the excessive pressure of population on the soil leading to subdivision and fragmentation of holdings and cultivation, the absence of alternative occupations as means of subsistence, the depredations of bad harvests, extravagant litigation among the rural population as a corollary of land-grabbing, the extravagance and recklessness of the cultivators in their everyday life, land assessment and the last, but by no means the least, ancestral debt which piles up in, what Malthus would have called, "a geometrical ratio" of progression in the hands of the rural moneylender or the *mahajan*. But we must not commit the error of ignoring the fundamental cause of rural disintegration, viz., the imposition of a competitive system of economic adjustment on a subsistence type of economy which has generated the conjuncture in which the Indian cultivator simply *cannot* administer his resources without indebtedness. Subdivision and fragmentation of holdings and of cultivation are the consequences of this competitive system of economic adjustments which has kept industrial wage-level depressed at a level where there can be no kind of "efficient" rural exodus; it has again, by destroying the economic stability of the cultivator through the decay of barter adjustments, left him the victim of economic distress during times of bad harvests; it has, again, by destroying occupational balance in national economy through direct encouragement to joint-stock type of industrialisa-

tion with a competitive wage-level, accelerated the land-grabbing tendency of the rural population; by rendering his "standard of wretchedness" inefficient in a competitive market for primary products, it has laid the cultivator open to the charge of recklessness and extravagance and through substituting the old barter adjustment by "exchange adjustment", it has magnified the incidence of land assessment, which is the greatest factor that directly influences the cultivator's administration of resources.

The so-called "causes of rural indebtedness" are merely contributing factors in the process of rural impoverishment while the prime cause is the imposition of a competitive system of economic adjustments on the subsistence type of rural production. The glaring disagreement among those who have ventured to explore the phenomenon of rural indebtedness itself is an eloquent testimony to the fact that none of them have dared to face the real cause of agrarian debt, viz., the attempt of the Indian cultivator to balance his subsistence type of production in a competitive circle of exchange. From this perspective, the findings of the Deccan Riots Commission of 1875 are bound to cause no end of intellectual amusement. "It would be idle to say," wrote the learned Commission speaking of agrarian recklessness in our country, "that improvidence does not exist as a cause of indebtedness. It consists however, rather in the short-sighted imprudence of an ignorant class ready to relieve present necessity by discounting future income on any terms, than in an extravagant expenditure or misapplication of income...Undue prominence has been given to expenditure on marriage and other festivals as a cause of the ryots' indebtedness...The expenditure by itself rarely appears as a nucleus of his indebtedness. The constantly recurring small items of debt for food and other necessities, for seed, for bullocks, for Government assessment, do more to swell the indebtedness of the ryot than an occasional marriage". Here is a specimen of confused thinking. The Commission could have said in one word that the rural indebtedness of the country has been created by the failure of the cultivator to find a "competent" place for his productive process in the new system of competitive adjustments. As for the other observations of the Commission, it is evident that no man is ever going to discount his "future income" for "present

necessity" "on any terms". In asserting the contrary, the Deccan Ryots Commission has betrayed colossal ignorance of the fundamental concepts of economic theory. Every student of economic principles knows that however indigent the borrower may be and however arrogant the lender, there is a definite "time-preference-ratio" at which a credit transaction takes place, and if we are to go behind and analyse why the rural population of the country is prepared to discount future income at a *higher rate* than what the "norm" suggests, we shall have arrived at the fountain-source of agrarian indebtedness in India, viz., the growing uncertainty of liquidating the rural cost-structure in the competitive primary markets at an "adequate" price-margin. That will render redundant all the intellectual endeavour which enthusiasts of economic reform have put forward and we can safely eliminate the familiar catalogue of "causes" of agrarian indebtedness that is usually found in text-books as being superfluous.

It is evident that even if all the "causes" of rural indebtedness—like excessive pressure of population on the soil, subdivision and fragmentation of holdings, the loss of vocational balance, insecurity of harvests, love of litigation—were effectively controlled, the problem of rural indebtedness cannot be liquidated as long as the Indian cultivator has to seek adjustment in a competitive circle of exchange and his process of production is hampered by the restrictions imposed by the operation of the laws of an internationalised market for primary products. Obviously all the ameliorative measures hitherto adopted to relieve the cultivator from his debt have failed, since there has, at no time in the evolution of the country in the past century, been any attempt at giving the agriculturist the security of a corporate system of economic adjustments.

In such a background, the attempts made to combat rural indebtedness sound highly amusing. "Of the measures adopted to meet the evils of indebtedness", says the Royal Commission on Agriculture, "some have aimed at removing the need for borrowing by reducing the land revenue and making its collection more elastic, or by popularising the government system of loans to agriculturists; others have been directed against the excess of credit and have

protected the property of the cultivator from attachment and sale... More recently the power of the moneylender has been directly attacked... while the Co-operative Societies Act, 1912, has facilitated the introduction of village credit societies on the Reiffeisen model to replace the moneylender as a source of credit."¹ In other words all these years attempts have been made only to regulate and control the volume of the credit of the agriculturist and not to remove or regulate the prime "cause" of rural indebtedness. What must be done to solve the problem of rural indebtedness is to sterilise the local market against fluctuations in the international market for primary products and to liquidate the system of competitive economic adjustment in a comprehensive scheme of "regionalisation" of the productive resources of rural India. Till this is done, neither co-operation nor legislation nor technical improvement in rural production, will lift the cultivator from the Serbonian bog of economic bankruptcy.

In such a setting it is amusing to be told that "the greatest hope for the salvation of the rural masses from their crushing burden of debt rests in the growth and spread of a healthy and well organised co-operative movement based on the careful education and systematic training of the villagers themselves."² This observation would be true if the problem of rural indebtedness can, in any way, be isolated from the other major problems of rural economy. Co-operation can never solve the problem of rural indebtedness so long as the vicious mechanism of competitive adjustment goes on accelerating the pace of rural distress. Therein lies the tragedy of co-operation in India. Mere supply of cheap credit to the agriculturist, unaccompanied by any efficient scheme to extricate him from the vicious circle of competitive exchange, will only cause further complications in the "economic" administration of rural resources. The agriculturist unhesitatingly makes use of the new channel of credit thrown open to him, not because of his extravagance or his improvidence, but because of his indigence and the severe "time-preference" ratio which has been imposed on his administration of resources by a competitive rural market; but when he comes to repay

¹Report pp.432-33.

²Report of the Royal Commission on Agriculture, p.436.

the loan, he has once again, to face the complicated problem of liquidating his productive effort in an internationalised market which is dominated by all the evils of unrestricted individualist capitalism—speculation, cornering and monopoly.

The accompanying table gives a graphic picture of the growth of co-operation in India and at the same time reveals its basic weakness.—

Non-credit Rural Co-operative Societies in 1933-34.

Provinces	Purchase & Sale	Production	Production & Sale	Other Types	Total
Madras	76		13	335	424
Bombay	56	17	77	115	265
Bengal	80	935	250	46	1301
Bihar & Orissa	3	1	1	6	11
United Provinces			325	453	778
Punjab	17	185	1351	93	1646
C.P. and Berar	39	13	9		61
Burma	1	5	10		16
Baroda	11	26	20	96	153
Other areas		3	29	23	55
Total	310	1185	2105	1210	4810

In 1934-35, there were in India, 93,160 agricultural co-operative societies and 11,436 non-agricultural societies—credit societies predominating. This clearly points to a severe circumscription of the co-operative movement.

The financial position of co-operative credit societies is revealed in the data given under: for a total working capital of Rs. 34,22 lakhs in 1934-35, Rs. 26,50 lakhs were loans due from individuals and Rs. 11,91 lakhs were loans *overdue* from members. The sad financial position of the rural co-operative movement can be seen from the following table:—

Financial position of co-operative societies in 1934-35.

Provinces	Percentage of overdue loans to working capital.	Percentage to loans due.
Madras	42	54
Bombay	41	48
Bengal	51	74
Bihar & Orissa	63	81
United Provinces	44	70
Punjab	4	5
Burma	43	65
Central Provinces & Berar	63	79
Assam	65	96
Mysore	46	54
Baroda	39	47
Others	13	15
Total	35	45

"For these disquieting conditions," declares the Royal Commission on Agriculture, "there are several causes of which lack of training and of understanding of co-operative principles is the most important."¹ Neither "training", nor "understanding of the principles of co-operation" is going to come to the rural population of the country, if the co-operative movement appears before them more as an alternative source of credit than as an instrument of rural co-ordination. The Indian cultivator has discovered that the co-operative society has done nothing to alleviate the conditions under which he has to liquidate his productive effort; nor has it given the cultivator enough stamina to stand up to his competitors in the neutral, and even in the home, markets by doing something to assure him an adequate price-margin. The result is that the co-operative movement in India is in the strange position of justifying its existence in a competitive conjuncture and has hopelessly failed. Some may endorse the opinion expressed by the Royal Commission on Agriculture that "if co-operation fails, there will fail the best hope of rural India";² but few would dare question the truth of Prof. Taussig's caution: "Co-operation, put on its trial in the midst of an individualistic and capitalistic organisation, has failed to en-

¹Report, p.449.

²Report, p.450.

list the needed leadership...The conclusion both from experience and from general reasoning is that co-operation is not likely to revolutionize the social order...the hopes entertained a generation ago by many economists, that it was only in the first stage of a far-reaching development, are now cherished by few."¹

What then is the future of co-operation in this country?

The fundamental aim of co-operation is, as was stated by Charles Gide, "the substitution of solidarity for competition." As long as agricultural operations have to be carried on in a competitive circle of exchange, co-operation cannot succeed in India. Mere supply of cheap credit to the cultivator is no panacea for the gigantic problem of rural encumbrance; the major problem of administering his resources in a competitive and impervious market still haunts the economic horizon of the Indian cultivator. If co-operation is to succeed in India, it must pervade all the departments of rural economy—from the time the seed is sown in the fields to the stage at which the produce of land is converted into articles of consumption and service. If such a comprehensive scheme of socio-economic reconstruction were contemplated, it would be better to turn to other more powerful schemes of reorganisation than co-operation which is suffering from certain obvious structural and functional defects. Speaking of producers' co-operation, Prof. Taussig says: "Co-operative enterprises, however, must begin and must maintain themselves in competition with existing enterprises of the business world. They must accumulate their own capital thru their own savings. They must submit to a period of trial, and alas! must expect, in view of the almost universal experience of their kind, to succumb after a shorter or longer trial. No; if the displacement of the employing capitalists is to be achieved, something much larger must be set up, more ambitious, more proof against an unequal competition. Not an occasional single business within an industry, but each industry as a whole is to form the unit of organisation. And all the existing businesses are to be taken over at one swoop, their outfit of plant and supplies utilized at it stands; no putting self-

¹Principles of Economics, Vol. II, p.384.

held by struggling co-operators. Each single great 'guild' will have a monopoly of its field. No competition of any kind is to remain."¹ What we are aiming at in India is not a simple "displacement of the employing capitalist", but the sterilization of the competitive market in the primary commodities in the rural zones with their internationally determined price-structure. Naturally we have to plan something "much larger....more ambitious, more proof against an unequal competition," than co-operation. We have to rebuild the very structure of economic adjustments in the rural zones if we are to attain even the semblance of economic solidarity. Such a formidable task cannot be achieved by co-operation. As Marshall sums up: "Co-operation might seem likely to flourish in agriculture and to combine the economics of production on a large scale with many of the joys and social gains of small properties*The movement is however of limited scope: it scarcely touches work in the field itself.*"² So much for "the best hope of rural India".

In such a setting, co-operation can do very little to dissolve the highly complicated problem of rural indebtedness in our land. The co-operative movement in India has served only as a temporary aberration in rural evolution. As long as we do not care to understand the basic economic complex which has given the country its huge rural debt, and strenuously attempt to restore economic stability to the economic life of our rural zones by dissolving the competitive system of economic adjustments which has created all the major problems of economic maladministration of the country's productive resources, all the efforts made to relieve the Indian cultivator of his burden of debt—legislative, co-operative and financial, like the Agriculturist's Relief Act, Taccavi Loans, Rural Credit Societies and the Land Mortgage Banks—can only be relegated to the morbid museum of misdirected enthusiasm.

Where big business and "broad acres" predominate, exchange economy has been bounteous in its rewards; but

¹Principles, Vol. II, pp.472-73.

²Italics mine, See Alfred Marshall, Principles, p.655.

in regions where unorganised "individualism" predominates both in agriculture and in industry, with the serious limitations imposed on the technique of production by "small" ownership, exchange economy has proved an unmitigated curse. Agricultural conditions in the New World—America, Canada, Australia and the Argentine Republics—clearly prove the blessings of exchange economy on organised agriculture. In those countries what the Germans call *raub-bau* or "predatory cultivation" has been possible because of the vast extent of unexploited land available. India, as we have noted more than once above, is in the same position as England, Germany, and France regarding *Raub-bau* and must necessarily consolidate her land resources if she is to maintain her normally growing population above the standard of wretchedness.

But what has happened in India is exactly the reverse of what would happen in any other country with even a semblance of co-ordination between the rate of production of subsistence and the rate of growth of population. With very little scope of *Raub-bau*, the only alternative for the country is intensive cultivation. But intensive cultivation is hampered by the presence of various factors which seriously affect the technique of agrarian production like subdivision and fragmentation of holding and the ever-growing pressure of population on the land resources of the country. In such a background, the "mechanism of competitive exchange" can only be a potential instrument of economic exploitation, operating to the ruin of not only the agriculturists but also of the economic position of the entire country. With his small apparatus of production, designed more for local adjustment than for international economic adventure, the Indian cultivator has to face a highly complicated and competitive market in order to balance his slender resources. His cost-structure is "high", because his apparatus of production is essentially "incompetent" when brought face to face with the highly organised and modernised mechanism of agricultural production abroad as, for instance, in America, Australia and Argentina. The Indian agriculturist's cost-structure is obviously too rigid to suit itself to the price-movements of a primary market with a progressively contracting cost-structure

as a result of technical progress in the arts of agriculture in countries where agriculture is specifically organised for an international market. Naturally, price-movements in the international market for primary products are imper-
vious to the cost-structure which the Indian cultivator has to maintain in order to keep the wolf from his hut. Thus the Indian cultivator is caught between the two inexorable blades of the gigantic economic scissors: a rigid cost-structure which he cannot change without causing material distress to his family and an unresponsive price-structure which is determined by conditions of world-production and the rate of international consumption. If the Indian cultivator had any other occupation open to him on easier terms, the Law of Choice, which pervades all economic adjustments, would have driven him out of agriculture. But the only alternative open to the Indian cultivator is economic attrition: naturally he has to find out ways and means of bridging the gulf between his cost-structure and the price-structure ruling in the agrarian markets, which he does by accumulating his burden of indebtedness involving the ultimate loss of his holding to the creditor.

Of the other objective deficiencies which have hampered adequate exploitation of the land resources of the country, the most important is the problem of irrigation.

It has been universally accepted, as we have noted earlier in the course of this book, that India depends, for the success of her agricultural operations on the fitful phenomenon of the monsoon. Through nearly a century and half of economic evolution of the country, very little has been done to reduce this uncertainty in the successful administration of rural resources of India. The accompanying table speaks for itself.

Irrigational Facilities in India, 1933-34.

Province.	Percentage of area irrigated to total cropped area.	
	1933-34	1925-26
Bombay	1.4	1.6
Madras	19.4	21.7
Sindh	97.1	85.2
Bengal	0.5	0.4
United Provinces	10.9	7.0
Punjab	35.1	39.2
Burma	11.3	4.4
Bihar & Orissa	2.9	3.6
Central Provinces	1.6	1.8
Baluchistan	5.0	9.6
Average percentage of Irrigated area	12.8	11.8

Out of a total cropped area of 232,854,000 acres in 1933-34 only 29,888,000 acres were partially rescued from the clutches of the monsoon.

According to the Royal Commission on Agriculture, the problem of irrigation falls into three divisions:

- (a) the problem of utilising waters of rivers without undertaking the creation of storage works;
- (b) the problem of regulating the supply of water in the deltas uniformly throughout the wet and dry seasons; and
- (c) the problem of water storage.¹

Under the first division, the Punjab has carried successful experiments, through its vast network of irrigation canals. The second division is amply illustrated by the vast irrigational schemes of the deltas of the Godavari, the Kristna and the Cauveri in the Madras Presidency and to some extent in Bengal; while in the third division are included the storage construction works ranging from small tanks to vast irrigational lakes like the Lake Fife and the Pariyar Lake.

The vital importance of irrigation in India can only be explained by the peculiar position which India occupies

¹Report, p.324.

regarding rainfall and climate. There are regions where rainfall is hopelessly inadequate to ripen crops as in Sindh and over large parts of the Punjab, with the inescapable consequence that agricultural production is impossible without some kind of irrigation. In other parts of India, though rainfall is adequate for the successful termination of agricultural operations, it is so precarious and fitful that agricultural production cannot be carried on without some sort of irrigation as in the Deccan. Finally, there are regions like the United Provinces, Bihar and Orissa and the Central Provinces where irrigation is more a protection against famine than a normal requirement of agricultural processes.

Few therefore, can seriously contend with Sir Charles Trevelyan when he declared, many years ago, "Irrigation is everything in India, water is more valuable than land, because when water is applied to land it increases its productivity at least sixfold, and generally a great deal more, and it renders great extents of land productive which otherwise would produce nothing, or next to nothing."¹ Sir Charles might seem to-day to be simply declaiming the obvious; but it seems to be the obvious that has been neglected in the entire course of the technical evolution of India in the past century and half.

The same lack of co-ordination which we noticed in the evolution of the transport system of the country, is to be observed in the evolution of irrigation also; the same causes which led to the anomalous development of the country's transport-system led to the stagnation of irrigation. From the earliest period of the history of Indian agriculture, irrigation has been a major department of state-patronage for the simple reason that major irrigational projects could not be executed by conscripted labour under the corporate economy of rural India. In fact the construction of irrigational facilities like tanks and wells was an act of great social merit according to the old Indian code of social morals. We thus come across in the Chingleput District of the Madras Presidency tanks which were constructed eleven hundred years ago and which to this day irrigate two to four thousand acres of land that would

¹See Romesh Dutt, *The Victorian Age*, p.361.

otherwise have been fallow. Similarly coming to historical times, Firoz Shah was the author of the Western Jumna Canal which reaches back to the fourteenth century. So too were the Upper Bari Doab canals which bring water to the thirsty cities of Lahore and Amritsar constructed by early rulers. Such a scheme of things is but natural in a country where agriculture is recognised as the foundation of economic stability. Nor can it be denied that the East India Company saw the importance of irrigation in the scheme of national reconstruction. Lord Hastings wrote in a minute dated 21st. September, 1815, "I will only say that my own inspection," of the West Jumna Canal, "has fully convinced me of the facility and the policy of improving this noble work. Setting aside the consideration of its certain effect, in bringing into cultivation vast tracts of the country now deserted...the dues to be collected for the distribution of the water from it would make a most lucrative return." The East Jumna Canal was restored and before the reconstruction of the Ganges canal could be attempted, the East India Company reached the last days of its Indian administration. Similarly the memorable work of Sir Arthur Cotton in the Deccan is associated with an administrative policy which was fully awake to the fundamental importance of irrigational development for the country's economic prosperity. Lord Dalhousie wrote in his minute of December 6, 1850 of the sad condition of tracts where irrigation had been neglected: "Everywhere, I found lands of vast extent, fertile properties now lying comparatively waste, but wanting only water to convert them into plains of the richest cultivation."

Then came the period in the economic evolution of the country which magnified the urgency of administrative co-ordination to the detriment of economic conservation. Naturally the voice of people like Sir Arthur Cotton and John Bright became a mere cry in the wilderness of lost causes. "We hear", declaimed John Bright, the avowed champion of all lost causes, "that there has been nine millions or sixteen millions sterling spent on such works (irrigation schemes). What is that in India? The town of Manchester alone, with a population of half a million, has spent two million pounds already, and is coming to Parliament now to be allowed to spend 3½ millions more.

But in India we have two hundred millions of population subject to the English Government, and with a vast supply of rainfall, and great rivers running through it, with the means...of abundant irrigation."¹

But the urgency of administrative co-ordination prevailed. India got her anomalous railway system, while her irrigational needs were neglected.

Nearly three quarter of a century after John Bright and in spite of major irrigational projects like the Lloyd Barrage and Canals in Sindh, the Cauvery (Mettur) Project in Madras and the Sutlej Valley Canals in the Punjab and numerous tanks and wells, hardly twelve per cent of total area cropped in India has been reclaimed from the vagaries of the monsoon.

Speaking of Madras, the Royal Commission on Agriculture observed, "There has been no great expansion of irrigation in these tracts since the Irrigation Commission reported"² in 1901. This statement can be applied generally to the whole of India. Though some areas have been brought under irrigation by the construction of giant storage works in recent years, the main problem of irrigation has hardly been even scratched. "The total capital outlay direct and indirect on irrigation and navigation works," records an unofficial document, "including wells under construction, amounted at the end of the year 1934-35 to Rs. 150.89 crores,"³ while in the same period the total outlay (capital) on railways stood at Rs. 885.47 crores!

"It has taken thirty-two years," said Sir Arthur Cotton in 1878 of irrigation works in India, "to obtain £700,000 for them—£20,000 a year for works which from the very first had been almost prodigious success....During this time there was not the least question about £500,000 for sixty miles of railway to Nagpur, which it was acknowledged would not pay 4 per cent."⁴

It is an undisputed fact that from the very start railways were more an obsession than part of any co-ordinated plan for the economic evolution of India. If there had

¹Quoted in Romesh Dutt, *India in the Victorian Age*, p.364.

²Report, p.330.

³The Indian Year Book, 1937-38, p.321.

⁴General Sir Arthur Cotton, by Lady Hope, p.276.

been any kind of co-ordination regarding the economic evolution of India either as an agricultural country or even as a country with a well-balanced economic structure, the history of transport would have been differently written and India would have long ago climbed out of her precarious dependence on the fortunes of the monsoon.

To talk of commercialisation of agriculture and intensive, scientific cultivation with more than 200 million acres out of a total cultivated area of 232 million acres depending on the uncertain and uncontrollable factor of the monsoon is nothing short of mockery. No one can blame the Indian cultivator for the conservative and fatalistic view that he takes of his process of production, nor can any one with any degree of understanding of the background in which the Indian cultivator has to administer his resources, assert that the one thing standing between the Indian cultivator and the golden age is his own "obstinate disinclination to be taught new ideas or to adopt fresh methods."¹

"A future of incalculable prosperity awaits India", said the late Lord Birkenhead, "if and when she learns fully to realise and to value her agricultural kingdom."² No one can deny either the beauty or the truthfulness of this observation; but none can deny that the Indian cultivator whose main source of livelihood is land has fully appreciated the "value" of the agricultural resources of his land. What actually happened in the last century of economic evolution of India was that the country was caught in a stampede of political co-ordination which followed in the wake of the Indian Mutiny of 1857. Naturally more attention was devoted to the process of administratively co-ordinating the country than to the process of economic conservation either through the evolution of an "economically" efficient transport system or through a scientific exploitation of the agricultural and industrial resources of the country. That is how railways came to be preferred to irrigational projects till very late in the "technical evolution" of the country. That also explains the failure of the Indian transport system to justify itself "economically" or to assist the development of the country along the universally accepted lines of "economic" progress.

¹Lord Birkenhead, speech on Indian Affairs, 7th July 1925.

²Ibid.

Consequently the present economic condition of the country is so complicated that even the best "technical" progress in the processes of rural production cannot give the country even the shadow of economic stability; unless it was closely co-ordinated in an intricate system of economic adjustments involving the complete overhaul of the "individualist" and competitive system of economic equations. The "technical evolution" of the nineteenth century has only given India all the universally accepted instabilities of an internationalised economic system. Under such a regime the country has evolved itself into a gigantic conglomeration of "distributing centres", which have in no way assisted either the process of conservation of rural resources or the co-ordination of secondary production. It is in this "scheme" of economic anomalies that Indian agrarian distress is born; unless we abandon the "scheme" of economic adjustments that the "economic" evolution of the country in the past century has set up, all the "technical" improvements which we may attempt in the rural zones will be nothing but sheer waste.

Because of its predominantly "individualistic" complex, agriculture has failed to bring prosperity to the Indian cultivator. And the improvements which we may attempt on the technical side of rural production would be sterilised in a welter of competitive adjustments in an internationalised market for primary products. In such a setting the lack of efficient conditions like proper irrigation, proper implements and adequate 'power' only worsen the position of the agriculturist in a competitive market. For instance, in those areas which are irrigated, the charges for water are an additional burden which must gravely affect the cultivator's competing "power" in the circle of exchange, and distort his scheme of economic administration. In Sindh for instance, nine-tenths of the revenue is regarded as water charges. In Madras and Bombay, land assessment is heavier on land irrigated than on land which depends upon the mercies of the monsoon; in the greater part of the country the pitch of assessment varies not only with the ease of access to water, but also with the crops raised on the land. In the Punjab, the charges vary from Rs. 7-8-0 to Rs. 12-0-0 per acre for sugar-cane; from Rs. 4-0-0 to Rs. 7-0-0 per acre for rice; from Rs. 3-4-0 to Rs. 5-4-0 per

acre for wheat; from Rs. 3-0-0 to Rs. 4-4-0 per acre for cotton and from Rs. 2-0-0 to Rs. 3-4-0 per acre for millets and pulses. Government of course guarantees to supply the water required to ripen the crops and if the crops do not reach the normal expectation, remission of assessment is permitted. In the Central Provinces charges for water are levied on the long-lease system and water is made universally accessible in times of stress.

Whatever the details of the administration of these "technical" factors affecting the processes of rural production, there is no doubt that all these have gravely damaged the position of the Indian cultivator in a competitive market by "freezing" his cost-structure. There can be no shadow of doubt that had there been any kind of co-ordination or plan in the economic evolution of the country, and had the "technical" conditions been regulated to suit that plan, the country would have been benefited as a whole and would have been an "economic" asset to the British Empire. As it is, the evolution of transport unrelated to the economic evolution of the country has not only destroyed the economic stability of India as a whole but also has so damaged itself that it has been a permanent "economic" burden on the entire community, besides operating as a disturbing factor in the general scheme of economic adjustments by creating all the major problems of urban economy in the country including the gigantic problem of "uneconomic" localisation of the industrial units, a topic which we shall reserve for a subsequent chapter of the book.

Overshadowing all the other problems of rural economy in India stands the gigantic problem of agrarian distress. A special feature of the Indian agrarian distress is that while in other countries rural distress is only a temporary problem of economic adjustment, in India agrarian distress is a permanent phenomenon of "economic" evolution. Rural indebtedness, technical deficiencies of agrarian production, problems of rural exchange are in a way only symptoms of the major factor of rural distress which has caught rural zones since the middle of the nineteenth century. No study of India's rural economy can be adequate without a proper analysis of this Great Distress; and such an analysis is all the more imperative especially when so

much misapprehension prevails regarding the origin, course and dissolution of the major problems of India's rural economy.

Even though the Royal Commission records that "whether, in fact, the economic position of the cultivating classes has improved and is improving is a matter on which there are still differences of opinion",¹ no one who has closely followed the fortunes of the rural masses of the land through the process of economic disintegration over the past century can have any honest doubt about the intensity and extent of rural distress. The rural population may, to a certain extent, have widened their circle of exchange, but the mere fact that a small group of twentieth century articles like the sewing machine, the gramophone and the safety razor has entered the rural scale of preferences cannot convince any student of economic research in this country that there has been rural progress under the new economic order which Sir Theodore Morison was pleased to call "the economic transition" in India. The hesitating tone of the Royal Commission on Agriculture that "among a population so large as that of India, there must be examples of every stage of progress and decline,"² clearly indicates the extent to which rural distress had cast its grim shadow on the deliberations of the Commission. However much anyone may attempt to camouflage the problem of rural distress in a mass of statistical "data", the problem is too real to be missed. For instance the Royal Commission on Agriculture itself attempted, in vain, to shake off its conviction of rural distress by explaining away the gravity of the problem by saying that "if the position is viewed as a whole, there should be little room for honest doubt that there has been substantial progress."³ No economic enquirer who believes in the dynamic nature of all economic adjustments can accept this as any proof that Rural India is caught in the van of "economic progress". India has been involved in the process of economic evolution in the past century, and economic evolution must mean economic change involving economic disturbance and adjustment. And our country has been no exception to this normal process of economic evolution so far as mere "technical" adjustment

¹Report, p.13.

²Report, p.13.

³Ibid, p.13.

is concerned. There is no doubt that the country as a whole has been caught in a cycle of change and adjustment, that our scales of preferences have experienced a new orientation, that our conceptions of comfort and of living itself have been radically transformed. In such a general movement of cultural and technical regeneration, it is idle to pretend that the economic life of the rural masses has gone unaffected: as has been so often reiterated, the very conceptions underlying the economic life of the rural zones have been seriously challenged by a new set of economic adjustments; and there has been a country-wide reaction to this challenge. This does not mean that rural India is caught in the van of "economic progress" though we must admit that the country has, in the course of the past century of technical evolution, experienced "technical progress".

It is therefore redundant to assert with the Royal Commission that India has experienced "progress" if progress is connoted as *the technical process* of change and adjustment to that change without attempting to strike any kind of relationship between the two. Thus our country has seen 'progress' in the volume of "foreign trade"; there has been "progress" in the means of transport and communications; there has been "progress" in the evolution of the financial institutions of a "capitalistic economy" in the new urban areas of the country; there has been "progress" in the close interrelation between the Indian and the world markets; there has been "progress" in the organisation of "marketing and exchange" in the new "distributing centres"; but, strange as it may seem, "technical progress" in all these institutions of an "economic" civilisation may be entirely different from what we call "economic" progress, especially when *economic progress* is connoted as a "complex" of economic relationships calculated to reduce the zone of "general distress".

There is no "adequate" evidence to prove that there has been no "general distress" in the country. Evidence of an increasing national income per capita does not prove "economic progress" since it is a mere average "conception" and gives us no clue as to how that average 'income' is distributed. The study of national income *per capita* as an index of general economic progress is faulty because the

ultimate appeal in statistical "conclusions" is more to a bundle of tabulated "data" than to the discovering of economic relationships among the given data.

Even though there has been a gradual tendency towards industrial and commercial urbanisation, no one can boldly affirm that this phenomenon is accompanied by any kind of general rural exodus which is so characteristic of all normally progressive "economic" communities. In fact, the past century of economic evolution has betrayed two definite symptoms of economic "distress": firstly, a growing pressure of population on the land resources of the country and secondly, a relatively stationary volume of subsistence as against a normally growing volume of population.

No doubt statistical evidence can be invoked to show the progress that India has achieved in the "absolute" volume of agricultural production, the "absolute" volume of intra-national and international trade and in the growth of industrial and commercial urbanisation. But any conclusion which we may be induced to draw from such data without our attempting to establish a ratio between them and the growth of population or the composition of economic relationships is bound to be a mere "absolute" conclusion which leads us nowhere. It is in this sense that the "colourlessness" of statistical data in tracing out economic relations is finally established. It is only such an "absolute" study of the statistical data regarding India's trade and production that has induced many "students" of Indian economic affairs into mistaking "*technical*" progress for "*economic*" advancement.

The most outstanding proof of economic stagnation of India, if not of economic deterioration of the country, is offered by even a cursory glance at the figures of India's foreign trade as given under.

Value of India's Sea Borne Trade
(In lakhs of Rupees)

Description	Pre-war average	War average	Post-war average	1937-38
Imports including				
Treasure	1,98,87	1,98,32	3,20,21	1,81,94
Exports—including				
Treasure	2,32,55	2,33,13	3,19,64	2,09,53

Even making due allowance for the fluctuation of values, progressive industrialisation and expanding home-consumption, these figures reveal the gravity of the economic situation of the country. While the value of the total imports and total exports of the country for the year 1937-38 has failed to reach even the pre-war figure of Rs. 1,98,87 lakhs and Rs. 2,32,55 lakhs respectively, the population went on increasing during the period and there is no available evidence to show that home production during the period under survey increased in any "adequate" degree to balance this growth of population. Nor has there been any evidence of an "efficient" redistribution of vocations to counterbalance the increase of population in the first three decades of the twentieth century.

An equally dismal picture is presented by a detailed study of the statistics of our export trade as under:

Export of Grain, Pulses and Flour (In thousands of tons)

Description	Pre-war average	War average	Post-war average	1937-38
Rice (in husk)	42	32	35	1
Rice (not in husk)	2,398	1,685	1,462	227
Percentage to production	9%	5%	5%	0.9
Wheat flour	55	57	56	62
Wheat	1,308	807	237	460
Percentage to production	14%	9%	3%	4.3%
Pulse	159	129	141	86
Barley	227	198	40	35
Jowar and Bajra	41	41	11	4
Other sorts	181	192	27	3
Total	4,411	3,141	2,009	878

These figures imply firstly, that India has begun to feel the full weight of her population on the structure of her rural production and secondly, that the country will find it hard to maintain an "adequate" volume of foreign trade unless something were done to remodel her cost-structure to suit the conditions of a competitive market in primary products. They also reveal the gravity of the economic situation of India should the ratio between the growth of

population and the production of subsistence compel the country to import subsistence from abroad!

The signs of this impending disaster are already there. "India proper", says the Official Reviewer of India's trade, "excluding Burma has always been a rice-importing country on balance and since the separation of the trading accounts of the two countries, India figures as one of the largest, if not the largest, rice-importing countries in the world."¹

Imports of Rice from Burma

(In thousands of Tons)

Year	Quantity
1932-33	936
1933-34	1,628
1934-35	1,978
1935-36	1,573
1936-37	1,534
1937-38	1,267

And the Official Reviewer goes on to record: "The large imports of rice into India are necessitated by the fact that **the production of rice in India** which is the largest and most popular staple food crop **has not kept pace with the growth of population.**"²

Judged in this background, the seriousness of the consequences of a breakdown in the ratio between the production of subsistence and the growth of population assumes due proportions. There are five factors which have been warning us of the coming disaster; the spiral of economic "disaster" for the country can be said to ascend in these five stages: the first is the stage of the growing rhythm of population expansion; the second is the accelerating pace of the process of sub-division and fragmentation of holdings and cultivation; the third stage is the stage represented by a reckless exploitation of the land resources of the country, the process of maladministration gradually and inexorably extending to the industrial resources as well in a desperate attempt to keep up an "adequate" volume of foreign trade; the fourth stage is represented by the expanding shadow of

¹Review of the Trade of India in 1937-38, pp.22-23.

²Review of the Trade of India in 1937-38, p.23.

economic determinism over both the rural and urban areas of the country in a desperate attempt at equating a relatively stationary volume of subsistence with a relatively dynamic volume of population; and the final stage is the consummation of all the forces of economic and cultural disintegration in a cultural and economic upheaval and anarchy of unprecedented severity.

The majority of these symptoms of economic collapse are already there. Placed in such a background, the peasant who has to seek adjustment between the resources placed at his disposal by his "microscopic farm" which seldom extends beyond three acres in dimensions and the goods and services in a competitive circle of rural exchange under an inexorable price-structure, can neither farm efficiently nor administer economically. His implements can never approach the standard of the agrarian implements used at the experimental farms at Pusa and New Delhi, nor can he afford to give his cattle the veterinary protection and nourishment suggested by Muktesar nor can his breed of cattle approach the standard set by Karnal and Anand nor can he expect to introduce in his small piece of land all the up-to-date improvements invoked by his potential competitors in the primary markets—the Middle West of America, the Argentine Republics, Australia and Russia. Because of the difficulties of the Indian cultivators in their adventure into the competitive home and foreign markets, our rural economy is caught in a precariously intertwined zone of vicious circles. Unless something drastic is done either to prepare India to claim her rightful place in a world-competitive economic order or to develop the country within the frontiers of a barter economic system, India must face the inexorable vicious circles of her economic life: growing volume of population of the country must lead to increasing splitting up of the agrarian resources of the country culminating in a gross misdirection of rural productive resources; misdirection of productive resources acting as a tonic on the further increase of the volume of population; with regard to the evolution of a competitive rural market, the Royal Commission has the distinction of pointing out the existence of a vicious circle; "No organisation for trade or commerce could grow up," it exclaims, "without the production of a surplus over the local demand and no indivi-

dual, village or province would continue to produce such a surplus in the absence of the machinery of trade and commerce essential to ensure for it a reward commensurate with the labour expended."¹ Similarly agrarian indebtedness cannot be liquidated till agricultural production is reorganised and agricultural production cannot be reorganised until agrarian indebtedness is liquidated; in the technical frontiers of agricultural production itself there are several vicious circles; the Royal Commission of Agriculture has mentioned one regarding the factor of rural power: "The worse the conditions for rearing efficient cattle are, the greater the numbers kept tend to be."² Till this vast zone of vicious circles is effectively dissolved, Indian agriculture is threatened by a major economic and technical crisis.

It must be recognised in all fairness to the enthusiasm of the State that faint attempts have been made from time to time to reduce this zone of vicious circles. The attempted evolution of cottage industries to relieve the pressure of population on the country's rural resources has only brought to the surface the major problem of organising a non-competitive secondary market; the development of the co-operative movement to dissolve the problem of rural encumbrance³ has only demonstrated the vastness of rural debt and the helplessness of the rural population in liquidating it; the establishment of the Imperial Council of Agricultural Research has testified to the existence of technical deficiencies in the machinery of our rural production and the helplessness of agricultural research before the economic distress of the Indian cultivator; the most poignant testimony to the "success" of all these palliatives was given by the Royal Commission on Agriculture itself when it declared: "The main characteristics of village life are still those of the centuries anterior to British rule."³ Attempts at conserving subsistence which is now being exported from the country to balance foreign obligations incurred in the ordinary course of foreign trade, through the manipulation of the tariffs, have only served to emphasise the futility of artificial barriers to the free operation of forces of competitive adjust-

¹Report of the Royal Commission on Agriculture, p.8.

²Report, p.191.

³Ibid, p.5.

ment, as well as the unwisdom of such endeavour to combat the inexorable laws of international trade.

The following table of revenue from the export duty on rice clearly indicates, not the effectiveness of the duty in conserving a staple foodstuff for home consumption, but the gravity of the problem of sustaining a growing population on a stationary volume of subsistence and the consequent strain placed on the internal rice-market.

Revenue Derived from Export Duty on Rice—(In £s)

Year	Amount
1913-14	860,000
1918-19	741,000
1932-33	568,000
1934-35	486,000
1935-36	424,000

The grave situation in the production of subsistence becomes more graphic from a study of the accompanying table.

Production of Staple Food Grains in India.

Year	Rice		Year	Wheat	
	Cleaned rice in Br. India				
	Acres	Tons		Acres	Tons
1913-14	76,908,000	30,138,000	1912-13	27,000,000	8,000,000
				(5 yrs. average)	
1918-19	77,613,000	24,318,000	1922-23	28,000,000	9,000,000
				(5 yrs. average)	
1930-31	79,467,000	31,277,000	1929-30	31,654,000	10,469,000
1933-34	79,224,000	29,745,000	1933-34	35,992,000	9,424,000
1934-35	78,129,000	29,024,000	1934-35	34,490,000	9,728,000

Population in the same period increased in the following proportions: from 1911-21 at 1.2 per cent, thanks to the influenza epidemic, and from 1921-31 at 10.6 per cent.

"Wherever population increases," said James Anderson nearly one hundred and forty years ago, "the produce of the country must be augmented with it, unless some moral influence is permitted to derange the economy of nature."¹ It must be recognised that the present grave ratio between the production of subsistence and the increase of population in India is hardly the nemesis of any "moral influ-

¹A Calm Investigation of the Circumstances that have led to the Present Scarcity of Grain, 1801.

ence" or of "social conscience", but the logical culmination of the past century of unco-ordinated "technical evolution" which has upset all attempts at bridging the gaps between the shifts and changes of economic "progress".

To sum up, the past century of "economic" evolution in this country has only been an era of unco-ordinated experiments in "technical" adjustments without any attempt being made to study the economic complex created by the impact of a competitive system of economic equations on the old corporate system of economic administration of the country. It is thus we come to hear of the *technical* experiments in intensive cultivation, in improving the live-stock, in the evolution of a co-operative movement, and the launching of imposing irrigational projects—none of which has succeeded in even touching the fringe of the problem of "economic distress"—which is haunting the lives of the three hundred and odd millions of rural dwellers and which must sooner or later spread its grim shadow over the microscopic patches of economic "progress" in the new urban areas.

It is as futile to attempt conservation of our agrarian resources by an artificial export system as it is to dream of an economically solid industrial structure through an artificial import system. Our country is called upon to face its economic destiny boldly and squarely. It must be the concern of every economic inquirer to investigate how the natural and secondary productive resources of the country can be conserved for a normally growing population. The evolution of the country under a competitive economy has revealed basic structural and functional weaknesses in the "economic system" of India in striking adjustment between an "individualist" system of production and a "competitive" system of exchange. It has given the country the three grave problems of mal-adjustment: the problem of the "uneconomic" agricultural holding, the problem of "technical" stagnation and the problem of "economic" exhaustion. It is futile to attempt to dissolve these maladjustments either through co-operation or through technical improvements so long as the bases of our economic system continue to be competitive in essence.

There are only two ways in which our rural economy can solve the problem of economic maladjustment: either

by changing the very structure of agrarian production to suit the exigencies of a competitive market through capitalist farming employing the most up-to-date technical improvements, or by abandoning the economic system which recognises competitive adjustment as the *sine qua non* of economic stability and progress.

The evolution of capitalist farming in this country would imply five major adjustments: the liquidation of the "small" farm; the emergence of alternative means of livelihood for the existing rural population; the dissolution of the huge volume of rural debt; adequate control, during the process of transformation at least, over the primary and secondary markets and finally the emergence of adequate "technical" conditions like irrigation and power supply and rural transport to assist the process of exploitation of the country's natural resources on *competitive* lines. In spite of all these adjustments, there still remains the uncertain factor of an internationally determined price-structure in the agrarian markets—exposing the apparatus of agrarian production to periodical shifts and changes to maintain its "balance" in world-wide agrarian markets. The other alternative of abandoning the system of competitive adjustments implies the evolution of a corporate economy in the country involving zonal or regional decentralisation of economic functions under a system of barter adjustments. Such an evolution would not only rescue the Indian farmer from the clutches of the competitive market but also restore regional occupational balance.

Such a scheme would imply certain preliminary cautions: it implies a careful study of the resources and opportunities of each economic "zone" or region involving a minute technical analysis of the soil and sub-soil, the crops that could be grown, the village industries which could be started, the facilities for power and service which could be harnessed, the facilities of transport and communications which can be developed and the technical conditions in agrarian production which can be improved so as to increase the *productivity* of each acre of land in the region.

No such scheme can ignore the major problem of conserving the land resources of the country in a nation-wide drive for land-reclamation, and a severe regulation of acreage now under money crops. The position of money

crops in the agrarian economy of the country can be appreciated by the table below so far as land resources and production are concerned. Also see the other tables concerning the subject:

PERCENTAGE OF EXPORTS TO TOTAL PRODUCTION.

Crops	Pre-war average	War average	Post-war average	1937-38
Cotton Raw	56	51	61	44.3
Jute Raw	51	31	48	48.7
Linseed	73	63	59	49.7
Rape and Mustard	23	8	19	3.4
Groundnuts	35	12	19	18.9

The Area under Money Crops and Total Production from Year to Year.

Jute.

Year	Acreage under the crop	Production in bales of 400 lbs.
1904	2,899,700	7,400,000
1914	3,352,300	10,443,900
1919	2,838,900	8,481,300
1921	1,518,000	3,985,000
1925	3,115,000	8,940,000
1930	3,492,000	11,205,000
1934	2,670,000	8,500,000
1935	1,947,000	6,372,000

Cotton.

1913-14	25,023,000	5,065,000
1914-15	24,595,000	5,209,000
1930-31	23,812,000	5,226,000
1931-32	23,722,000	4,007,000
1933-34	24,137,000	5,108,000
1934-35	23,907,000	4,836,000

Linseed		
Year	Acreage.	Yield-Tons.
1913-14	3,031,000	386,200
1918-19	1,989,000	235,000
1931-32	3,309,000	416,000
1932-33	3,299,000	406,000
1934-35	3,410,000	420,000
Groundnuts.		
1914-15	2,413,000	947,000
1918-19	1,407,000	626,000
1930-31	6,579,000	2,766,000
1931-32	5,489,000	2,268,000
1933-34	8,226,000	3,330,000
1934-35	5,766,000	1,883,000

Distribution of land resources between Food and Non-food crops.

(In thousands of acres)				
Description	1927-28	1928-29	1933-34	1934-35
Net area sown	223,862	228,166	232,246	226,980
Food Crops	207,569	210,796	217,665	212,644
Non-food crops	47,950	51,189	49,495	46,474

Of the above money crops, with the single exception of groundnuts nearly fifty per cent of the total production is earmarked for export. The Indian Jute industry has shown very little advance for the past quarter of a century. If the mill consumption of jute in 1913-14 for July-June was 45,00,000 bales of raw jute, in 1935-36 for the same period, it was 50,00,000 bales. Similarly, in 1913-14 out of a total production of 5,065,000 bales of raw cotton, Indian Cotton Mills consumed only 1,800,000 bales while in 1934-35, out of a total production of 4,836,000 bales, mills consumption of cotton was only 2,554,000 bales in spite of a nationwide drive of "swadeshi". In 1934-35 out of a total production of 420,000 tons of linseed, 238,000 tons were earmarked for export. In 1913-14 out of a total yield of 749,000 tons of groundnuts 278,000 tons were being exported; the ratio of export to total production being 37.1 per cent,

and in 1934-35 out of a total production of 1,833,000 tons, 511,000 tons were exported, the percentage of export to total production being 27.1 per cent. It would be idle indeed to attempt any dislocation in the composition of India's foreign trade so long as the country remains within the ambit of an internationalised competitive system of economic adjustments. The foregoing figures only serve to emphasize the economic agony through which India is passing in trying to keep up an "adequate" volume of foreign trade by "money crops," which command an international market, though the production of subsistence has remained relatively stationary throughout the process of international adjustment.

Only intensive research with a view to scientific conservation of the land resources of the country can determine what portion of our land resources now devoted to the production of money crops can effectively be reclaimed for the production of subsistence. It can roughly be estimated that even under the technical conditions of rural production to-day as much as twenty per cent of the land resources now devoted to money crops can be reclaimed and a higher percentage, should the drive for conservation of land resources increase the productivity of each acre of land.

Not only is the land devoted to money crops extensive reaching the forty-seventh-million-acre limit, but it also happens to cover the most fertile zone available in India. "Jute growing", we are told on authority, "is confined almost entirely to the Ganges-Brahmaputra delta in the Presidency of Bengal and the province of Assam with the adjoining Indian State of Cooch Bihar though there is some cultivation also of the plant in Bihar and Orissa. River inundation bringing down rich alluvial deposits enables the cultivator to plant this exhausting crop year after year without expenditure on manure."¹ Similarly, cotton occupies some of the select tracts of Bombay, Madras, the Punjab, United Provinces, Central India, Rajputana, Burma, Bengal, Bihar and Orissa. In Bombay, cotton is grown in the particularly rich soils of northern Gujerat, Baroda, southern Gujerat with Broach, Surat and

¹Handbook of Commercial Information for India, 1937, p.141.

Navsari Districts, east and west Khandesh, Nasik, Ahmednagar, Sholapur, Dharwar, Belgaum and the Bombay States of Kolhapur and Sangli. In the Central Provinces cotton occupies nearly one-fifth of the total acreage devoted to cotton for India. It is grown principally in the fertile regions of Berar, Nimar, Wardha and Nagpur. In Madras the cotton zone comprises the districts of Bellary, Anantpur, Cudappah and Kurnool and the rich northern agricultural zones of Guntur, Kistna, Nellore and Godavari and the southern tracts of Tinnevely, Ramnad, Madura, Trichinopoly and Coimbatore. In the Punjab, the best land available is monopolised in the canal colonies of Lyallpur, Montgomery, Jhang, Shahpur, Sheikhpur, Gujranwalla and Lahore including Amritsar, Jullunder, Ludhiana, Sialkot, Jhelum, Rawalpindi and Attock and the south-eastern Punjab; "92 per cent of the area under cotton," we learn "in the British Districts of the Punjab was under irrigation."¹ and not satisfied with it, the Indian Central Cotton Committee recommended in 1933-34 that a block of 300,000 acres in the Sukkur Barrage area should be reserved for the cultivation of good staple cotton. Similarly in the United Provinces, out of a total of 527,000 acres devoted to cotton in 1932-33, practically half the area was irrigated. The best available land is, generally, monopolised by the so-called "money crops" because of the simple 'business' fact that they are intended for international consumption and their quality has to be relatively more standardised than that of agricultural produce intended for local or home consumption. This state of affairs is imperative in a country which has to export a portion of its primary products to keep up the requisite volume of foreign trade under an international economy.

No one can venture to suggest that the position of the money crops in our country is in any way happy. Nor is there any ground for believing that India can long maintain her position in the primary markets of the world with her present rural 'cost-structure'. Except in Jute, where the competition of the Russian flax is hardly effective, India has lost the greater portion of her neutral markets to America and Egypt in cotton and to West Africa, China and the Americas in groundnuts. With

¹Handbook of Commercial Education for India, 1937, p.163.

regard to linseed we are told: "the increased competition of the Argentine Republic, the United States of America, Canada and Russia have reduced considerably India's share of the trade."¹ In 1935, India could retain only 23 per cent of the linseed market in the United Kingdom itself, 2 per cent of the market in Italy in 1934 together with Ceylon. A comparative study of the position of Indian linseed in the foreign markets in 1913 and 1937 reveals that while India's exports to England had increased from 21 per cent in 1913 to 67 per cent in 1937, France imported from India only 3 per cent of her linseed requirements in 1937 as against 41 per cent in 1913. Indian exports in linseed to Italy during the same period, had fallen from 57 per cent in 1913 to 3 per cent in 1937, the principal competitor in the Italian markets being Argentina. Similarly, in rapeseed India's position in the total imports into England had declined from 36 per cent in 1913 to nil per cent in 1937 and in the Belgian markets India's share had fallen from 72 per cent in 1913 to 55 per cent in 1937; and in France, it had declined from 90 per cent to 58 per cent in 1937. Similarly, in Italy India's share had fallen from 93 per cent in 1913 to 75 per cent in 1937, the principal competitors in all these markets being Argentina and Roumania. With regard to sesamum markets, India's share in Italy had fallen from 58 per cent in 1913 to 18 per cent in 1937, while the share of China had increased from 18 per cent in 1933 to 55 per cent in 1937. With regard to the groundnut markets, India's share in imports into France had fallen from 58 per cent in 1913 to 28 per cent in 1937, the principal competitors being Senegal and other parts of West Africa.

This long and weary catalogue of India's position in the primary markets of the world suggests that there are only two alternatives before the country: either to consolidate her portion of the international agrarian market through a more efficient machinery of production and a more competitive cost-structure so that she may reclaim her markets from her competitors like Russia, the United States of America, Argentina, Roumania, Australia, Canada and Africa or to reconstruct the basis of her economic adjustments so that conservation, and not competition, becomes the keynote of her future economic evolution. If India

¹Handbook of Commercial Information, p.205.

is to survive her competitors in the international markets for agrarian products, the technical conditions determining her cost-structure must be "competitively" efficient. Such a reconstruction would mean the emergence of large scale farming in the country: not even the most incurable optimist can predict that India, with all her present technical and economic encumbrances imposed by a century of un-*co*-ordinated *economic* evolution, can within any reasonable time, engage herself in capitalist farming employing the most up-to-date methods of agrarian production. Such an evolution would only bring out the major problems of adjusting a dynamic population to an economic system based on individualist production and international exchange with all the intricate instabilities which such an adjustment would impose on the community at large. Even if a frictionless adjustment of India's economy to a system of international economic co-operation were possible, India would still be left to face the intricate problem of emancipatory or compensatory industrialism and the new-fangled industries would again have to seek their balance in a competitive secondary market.

Thus rural reconstruction aimed at preserving the framework of international competitive adjustment in tact through the preservation of the country's export trade or of a competitive home market will only mean another technical evolution in the country leading to fresh complications and problems not only economic, but also social and cultural. Such a reconstruction of our rural economic civilisation would only release on the country new forces of disintegration and distress and generate new sets of economic disequilibria involving social distress and cultural anarchy.

It is therefore imperative that we realised that the aim of economic reconstruction in India should be, not the creation of new zones of "technical progress", but the dissolution of the old zones of "economic distress." Reduction of "economic distress" in India must resolve itself into a systematic abandonment of the existing scheme of competitive economic adjustments both in urban and rural zones. As long as the bases of our economic system continue to be individualist production and competitive exchange, agrarian distress and urban stagnation are un-

avoidable. No experiment at the technical reconstruction of India either through greater urbanisation or through more comprehensive diversification of industries can solve the gigantic problem of rural exhaustion, if the newly created areas have to liquidate their economic effort in an international competitive economic system. And the problem of seeking economic adjustment with an international economic system is not an easy feat for a country like India where ninety per cent of the population are concerned with the raising of a mere subsistence from their economic effort. The economic and social problems of adjustment which industrialisation will unquestionably generate in the country must be relegated to the next chapter of the book. In such a background, it should be enough if it is emphasised that the verdict of any careful student of economic affairs in India on industrialisation can hardly be different from the verdict of the Royal Commission on rural industries: "But even with the aid of new ideas and assistance in training and marketing, the contribution which...industries can make, in reducing the heavy pressure on the land, is infinitesimal and in the nature of things they cannot, as a rule, hope for ever to survive the increasing competition of organised industry,"¹ from abroad.

Any scheme of rural reconstruction on non-competitive lines involves not only the regionalisation of agricultural production but also the substitution of the competitive market by a barter system of exchange. Such a reorganisation would, besides rescuing the rural economic structure from the patent instabilities of the international market for primary products, also extricate the rural population from indebtedness by the elimination of the only source of rural disintegration—"Money"—under which the small farmer had the double disadvantage of liquidating his productive effort in a highly organised competitive market and of again converting the medium of exchange into articles of consumption and service in a relatively inelastic market for consumption goods.

There need be no apprehension that the scheme of barter adjustment is either drastic or visionary. The difficulties of adjusting the existing machinery of rural production to the dynamics of competitive international exchange are

¹Report, p.575.

universally recognised. "The only cure for the relative depression of agriculture," wrote Prof. Robbins eight years ago, "would be either in some way to make the production of such products less efficient, to slow up the spread of modern methods of cultivation—a hopeless task, if any one were insane enough to recommend it, since, unless the diminution were the same all round, those groups which did not impose such restrictions would gain at the expense of those who did—or by the removal of artificial barriers, to hasten the transfer of labour and capital from the production of necessities which are in relatively inelastic demand to the production of things which are in relatively elastic demand—either agricultural products which are more in the nature of luxuries or to altogether different kinds of products."¹

Such are the difficulties which face agricultural production in a competitive economic system: agriculture has either to stay the wheels of technical advancement or to balance itself by incessant adjustment to the chops and changes of a competitive circle of exchange in order that the agriculturists may have their living margin in the economic civilisation of the world. The prospects of agricultural production in an economic system based on international competition are not bright; the case is worse where agricultural production is scattered in the hands of small farmers possessing "uneconomic holdings" as in India. Competitive economic adjustment can never give any country security and stability in the administration of productive resources: it will reduce every country either to a group of struggling rural producers or to a nation of international adventurers whose pillage of the world is bound to crumble in a frustrated adventure in economic exploitation through the usual channels of colonisation and imperialism or in setting up within each country a network of vested interests invoking artificial instruments of economic adjustment like the tariff, the subsidy, the bounty and the quota system in order, as Prof. Robbins might say, "to maintain (or to enhance) the value of capital already invested in the industry",² which is unable to adjust

¹Tariffs: the Case Examined by a Committee of Economists under the Chairmanship of Sir William Beveridge, p.151-152.

²See Prof. Robbins, *The Great Depression*, p.143.

itself to the conditions of competitive production owing to certain indigenous rigidities. Thus competitive economic adjustment may give a country the halo of 'technical progress' but it can never give any country the secure tranquillity of economic stability. Of the present tendencies in economic adjustment in the world, Prof. Robbins asks: "What, then, are the prospects of enduring recovery? It is clear that they are not bright....it is impossible to feel any confidence in a continuance of stability. In the fifty years before the war, in England, a man planning his life on the threshold of his career might look forward to a time of reasonable peace and security....To-day not even the most fortunate can have any such assurance. The probability of peace and progress in the next half-century is not very great."¹

Hence the urgency of rescuing the little farmer of our land from the gigantic scheme of competitive adjustment. This cannot be achieved until we initiate a nation-wide drive for economic conservation.

The only way we can conserve the productive resources of the country is by substituting competitive adjustment with barter adjustment. Such a scheme is neither new nor revolutionary for India. It is only an attempt at reconstructing the corporate life of the rural masses which has been damaged by an exogenous technical evolution of the country in the past century. Under a barter adjustment, agricultural production will not only have the benefits of regionalisation of rural production but also the security of a regionalised mechanism of economic adjustments. In fact, the scheme only attempts to "rationalise" the country's rural production by co-ordinating it with the other branches of "regional" economic endeavour, which must have an uplifting influence on the rural standard of life. The urgency of organising rural production both in volume and in variety and of creating 'conditions' under which the Indian cultivator will get a reasonable 'living margin' for his economic effort is recognised. Such 're-organisation' will provide for the re-opening of rural industries; and the expediency of co-ordinating them with the 'regional' barter-structure so that the pressure of population on the land resources of the country may be

¹Prof. Robbins, *The Great Depression*, pp.195-96.

sterilised, is also amply provided for. In a system of barter adjustment, the village money-lender will lose his hold on the rural population who have been extricated from the vagaries of an economic system based on cash and competition and the deterministic attitude about the village moneylender that "in the present state of India, he is a necessity,"¹ will be banished.

It is needless to reiterate, in bringing this chapter to its conclusion, that the major problems of rural economy in our country are the legacy of an 'economic evolution' based on equating 'incompetent' production with competitive exchange. The country had to suffer heaviest in this process because she had to adjust her production for subsistence, with all its technical limitations, to the chops and changes of a highly organised competitive circle of exchange. As long as India has to maintain this kind of economic adjustment, none of the problems of rural economy can be effectively liquidated. Neither industrialisation, nor the co-operative movement, nor the various agencies of rural uplift and amelioration can create that "environment" which even the Royal Commission on Agriculture recognised as essential to any efficient scheme of rural reconstruction.

Naturally the time has come for a vigorous plea for the abandonment of the competitive system of economic adjustment which has brought nothing but distress for the rural masses of the country. If rural distress is not speedily dissolved, the time is not distant when our land resources will reach the very limit of exhaustion and set up in the country vast zones of economic and cultural anarchy. That would spell the end of everything noble and uplifting in the ancient civilisation of this subcontinent!

¹Royal Commission on Agriculture, Report, p.433.

CHAPTER VI.

PROBLEMS OF URBAN ECONOMY.

WICKSTEED thus picturises a self-adjusting economic society: "At every point we see both human faculty and the materials which nature supplies, in various stages of specialisation and combination, controlled by forces which are ever thrusting us to feel forward towards that further specialisation which, of all the wants that can be reached, will touch the one that stands objectively the highest on the collective scale. As the stream sweeps down and approaches the region that seems thirstiest, news of success or failure in really finding it is signalled back to some point higher up on the stream where the channels part. The water that has once passed such a point cannot return to it, but in one channel its swift flow shows that it has found the thirsty spot, and in another it lags and lingers and shews that it has found the ground saturated: and so the sluices of the one channel may be lifted and those of the other dropped, and the flow of the ever-running waters regulated. Thus at each point the water that flows this way or that, though never itself to return, tells us how best to direct the future stream. And at each dividing point, (or to vary the metaphor), at each ganglion in the industrial organism, the flow of vital energy is directed forward along this passage or that, and news of the total they will carry is shot back to some higher ganglion that in its turn will co-ordinate a wider and yet wider system of centres."¹ Such economic evolution in actual every-day life is vitiated by the presence of two major factors: imperfect competition and uncertainty.

It is the presence of these factors which gives economic life its economic and technical limitations, so that every country experiences the full cycle of economic evolution in the course of its history: economic infancy, economic adolescence and economic senility in proportion to its capacity to understand and adjust itself to the dynamic phenomena of world economic evolution. It is a proper

¹Commonsense of Political Economy, Prof. Robbins' Edition, p.392.

appreciation of this fundamental feature of economic evolution that Sir William Beveridge attempts to stress in his calculating statement: "The practical issues of to-day must be settled, if they are to be wisely settled, with regard to the facts of to-day, not those of twenty-five or eighty-five years ago."¹ In such a background, even the most progressive countries of the world are not free from the problem of economic adjustment, or in other words, the catastrophe of economic senility. America is haunted to-day by the problem of adjusting the human factor to the machinery of competitive production; England has to face the problem of adjusting the productivity of her structure of production to the volume of her vital foreign trade; and Russia has been struggling to bring about co-ordination between her regional machinery of production and a regulated standard of life. The problem that England faces to-day is a problem which any country with her industrial system organised for an international competitive market has to face at some time or other, i.e., the **problem of maintaining a competitive cost-structure**. An economic system like the British can keep all its component parts in relatively stable adjustment with one another and with international economic conditions only in a "world" economic evolution which recognised international division of economic functions and international economic co-operation which gave certain parts of the globe an unchallenged monopoly of the secondary markets, while the rest of the world remained content with a "rural" economy. As Andre Sigfried says: "Il fallait d'abord que le monde acceptât, statutairement, pour ainsi dire, cette division internationale du travail qui faisait de l'Angleterre (et subsidiairement de l'Europe occidentale) l'usine spécialisée de la planète. Tout la doctrine reposait sur ce principe, hérité du Pacte colonial: aux colonies la production des matières premières, mais à la métropole le privilège de la transformation industrielle."² Regional adjustment with a dynamic international economic organisation is not possible without proper understanding of the new forces that manifest themselves in international economic life from time to time. England cannot any longer maintain her industrial supremacy if

¹Tariffs, the Case Examined, p.2.

²La Crise Britannique au XXe. Siècle, p.12.

she does not realise that she is growing progressively rigid in a fast moving economic world. In fact the problem of economic adjustment for England is vitiated by the illusion that the present century is still the nineteenth century: "La 'vieille Angleterre'—c'est bien ainsi qu' il faut l'appeler ici—s'était donc flattee de l'illusion que l'esprit et les methodes du XIXe. siecle continueraient de la soutenir dans un siecle nouveau."¹

What are main problems of economic evolution in India in such an economic civilisation?

Three definite characteristic features of India's urban economic evolution are to be noted at the very outset: the evolution of a transport system which has had no co-ordination whatever with the country's agrarian or industrial evolution; secondly, the emergence of distributing centres at the cost of industrial zones and finally, the complication of urban economy under the impact of an international exchange system involving not only the economic problem of "selective protection" and unregulated production, but also the intricate socio-economic problem of urban 'standard of life' and urban unemployment.

In any consideration of the part played by the transport system in the economic evolution of the country, we must remember the fundamental fact that railways were constructed in India more*for administrative co-ordination than for purposes of economic conservation. Railways were never developed, consequently, as a "business" proposition or as determinant of the economic evolution of the country. It is a matter of general history that in the thirties of the last century, the East India Company was evolving itself into the Government of a vast Empire. When the Charter of the East India Company was renewed in 1833, it was provided that the Company should thenceforth "discontinue and abstain from all commercial business."¹ Naturally the Company was more anxious to consolidate what Lord Hastings was pleased to call "the landed revenues of the Honourable Company" than to secure for British goods a market in India—and much less to conserve the natural and industrial resources of India. There was no longer any need for the Company to confine its activity to the commercial end of their great eastern "adventure".

¹Andre Sigfried, *Opt. cit.* p.18.

The Company was more anxious to secure for their Empire "peace and tranquility" by stabilising their administrative control over the country so that, as J. S. Mill might have put it, India may become a "warren or preserve for its own use, a place to make money in, a human cattle farm to be worked for the profit of its own inhabitants."² Whether the basic idea of the Company was, as Burke was never tired of indicting to see that "there is nothing before the eyes of the natives but an endless, hopeless prospect of new flights of birds of prey and passage, with appetites continually renewing for food that is continually wasting," or not, one fact emerges out of the mid-nineteenth century fog of intellectual confusion and that is that India's economic evolution was at no time in the hundred years of foreign rule, planned either as an attempt at economic co-operation with the Mother Country, nor was any deliberate attempt made to bring India *effectively* into the international economic order. If there was any economic 'bias' to the Company's scheme of technical reconstruction of India, the country would not have had her anomalous transport system which has neither consolidated India's foreign trade nor has given the country even the solace of rural stability and solidarity.

Any discussion of the merits of the guarantee system under which the Indian Railways were constructed would, obviously, fall outside the scope of this book. That the railway system of the country was not constructed either as any part of an economic evolution to link India to the Mother Country as a source of raw materials and foodstuffs or to facilitate the development of India as a potential market for the manufactures of Great Britain is amply proved by the various contemporary authoritative statements that have come down to us. We have Sir William Hunter's testimony that, "This was Lord Dalhousie's masterly idea—not only would he consolidate the newly annexed territories of India by his railways, and immensely increase the striking power of his military forces at every point of the Empire, but he would use a railway construction as a bait to bring British capital and enterprise to India on a scale which had never entered the imagination of any previous Governor General."¹

¹For a fuller description, the reader is referred to Sir William Hunter's Dalhousie in the Rulers of India Series.

Lord Dalhousie himself wrote in his Minute on Railways as if he were only voicing an after thought: "The Commercial and social advantages which India would derive from their (railways) establishment are, I truly believe, beyond all present calculations."

In such a background, it is impossible to expect the flow of unguaranteed capital for the railway enterprise. In fact the Committee of the House of Commons which enquired into the question of railway construction in India in 1858 did record: "that a guaranteed interest on the requisite capital was indispensable to induce the public to invest money in *undertakings of this magnitude and novelty*". As a consequence, the Government of India had to pay a guaranteed interest of £1,528,046 to the East India Railway, £456,049 to the Great Indian Peninsula Railway and £260,734 to the Madras Railway during the decade, 1849-58.

When Thornton remarked in 1872, "I do believe that unguaranteed capital would have gone into India for the construction of railways, had it not been for the guarantee," he betrayed a woeful confusion between strategic railway construction and economic railway construction. Unguaranteed capital would have come forth had the Indian transport system of the country been part of the Indian economic evolution. And such a collaboration between Indian transport and the general economic life of the country would have meant that the first station in the Indian railway system would neither have been Bombay, nor Madras nor Calcutta, nor would the first railways constructed in India have proceeded to Kalyan or Raniganj or Arkonam—places, incidentally, of no commercial, agrarian or industrial importance.

Naturally when the political consolidation of the country ceased to be the sovereign consideration in the evolution of the Indian transport system, the burden of "strategic" railways became at once oppressive. Giving evidence before a Parliamentary Committee in 1873, Lord Lawrence said: "I think it is notorious in India among almost every class that ever heard talk on the subject, that the railways have been extravagantly made; that they have cost a great deal more than they are worth, or ought to have cost." In the decade 1870-80, £24,644,702 were spent on railway construction.

This expenditure on railway construction was as essential as the huge expenditure on armaments which the Great Powers are incurring to-day, for the maintenance of external administrative relations and internal tranquillity.

"It will sometimes be of advantage," says Prof. Taussig, "to open up a new country or a new region, by railways (and the argument applies equally to wagon-roads, canals, steamship lines) which do not pay at the outset. This case is analogous to that of protection for young industries. Eventually the railway should pay; if the losses of the early stage are not recouped, they are definite losses. It follows that where subsidies are given to encourage railway construction, they should be in the nature of loans, to be reimbursed when the stage of profitable operation has been reached."¹

These canons of transport economy cannot govern the construction and maintenance of what are known as 'strategic' railways like the early Indian railways. Even a confirmed opponent of the guarantee system of railway construction like Romesh Dutt admits: "It is possible to conceive that if the people of India had been represented on this committee, (the Committee of 1858)...the committee would have formed a different opinion. They might have come to the finding that, in order to protect Indian revenue from undue expenditure, railway lines on the guarantee system should not be undertaken in India *except on the ground of absolute political necessity...*"² How so astute a writer as Romesh Dutt failed to observe that a transport system which overtly attempted to link seats of British Administration like Bombay, Madras and Calcutta with one another could be anything but a "political" transport system is something which cannot be easily explained!

A study of the Indian Railway Map as it stood in the year 1872 will clearly bring out the "strategic" aspect of the Indian transport system. By that year Bombay had been connected with Delhi via Allahabad, Cawnpore, and Allahgarh; with Calcutta through, Allahabad, Benares, Luckeesarai and Azimganj, and with Madras via Guntakal and Arkonam. The railway system had also brought Shersha

¹Principles of Economics, Vol. II, pp.391-92.

²Italics mine. The Economic History of India in the Victorian Age, pp.177-78.

near Quetta within its framework, connected Bangalore with Madras via Jalarpet and had proceeded to Negapatam in the south-east extreme of the peninsula and had swept westward to Kadalundey on the Malabar coast. The only place out of the way that the railways sought to favour was Ahmedabad, not because of its textile industry, since the first textile mill to be started in Western India was set up in Bombay in the year 1853, but because of the urgency of consolidating Gujerat, Sindh, Baroda and the innumerable Kathiawar States in a unitary administrative system.¹

Most of the stations on the Indian railway system then, as they are in our own days, were either military stations or strategic points or administrative headquarters. Shersha has remained to this day a feeder station for the Western Command forces stationed at Quetta and also for the forces of the Northern Command at Waziristan; Lahore, a station on the railway line between Delhi and Shersha happens to be a main military station for the forces of the Northern Command stationed at Peshawar. Poona again is a main station for the forces of the Southern Command. Madras is an important military station under the Southern Command and Bellary is linked up with Madras and Bombay as the controlling valve for the native state of Hyderabad which has a military station at Secunderabad. Lucknow on the branch-line between Cawnpore and Fyzabad happens to be a military station under the Eastern Command. So too Bangalore, on the Madras and Southern Maharatta Railway, is a military station under the Southern Command. The linking of all these stations with Bombay clearly shows the strategic bias of the Indian transport system. The Indian railway system was not expected to create "traffic"; if it did, it was, as Frederick the Great once told Madame de Stael, "an accident"!

None of the places on the Indian railway system were famous either as industrial or as commercial centres. Bombay was till the middle of the last century, only a port of moderate importance; "until the middle of the 19th century,"

¹We have the testimony of even a cautious observer like Sir M. Visvesvaraya that "railways have been allowed to be constructed in India, presumably for strategic reasons"—*Planned Economy for India*, p.75.

we are told, "it was a little more than a mere collecting centre for the trade of the smaller ports of the West Coast".¹ Similarly, we learn that "Madras industrially is of no great importance, though it possesses the two most up-to-date cotton mills in India."²

The growth of many of the modern urban centres is only incidental to the evolution of the Indian transport system as is illustrated below: the increase of population in the various cities from 1881 to 1931 is as noted under while in the half-century the total population of the country increased by 39 per cent. During this period, Calcutta registered an increase of 79.2 per cent; Bombay, 50.2 per cent; Madras, 59.1 per cent; Delhi 158.1 per cent; Lahore, 187.7 per cent. Rangoon, 198.4 per cent; Ahmedabad, 145.9 per cent; Karachi, 258.3 per cent; Nagpur 119 per cent; Madura, 146.6 per cent; Sholapur, 141.9 per cent; Ajmer 145.2 per cent; Baroda, 125.2 per cent; Tinnevely, 164.8 per cent; Bangalore, 96.6 per cent; and Poona, 82.6 per cent. In spite of this phenomenal expansion of the new urban areas, for the whole of India there are only three big cities with a population of over 500,000 and they are Madras with 647,230, Bombay with 1,161,383 and Calcutta with 1,485,582 as revealed by the census of 1931.

"The railway," says Prof. Taussig, "is the most important among industries, both as regards its effects on the economic structure at large and as regards its own special problems...Its cheapening of transportation immensely promoted far-reaching geographical division of labour, large-scale production, impending monopoly, great fortunes."³ The Indian Railway system did none of these: it was hardly responsible for any "geographical" localisation of industries; it hardly created any monopolies; nor did it generate any "great fortunes" for the simple reason that it was no part of any *conscious* "economic" transition in the country as in the United States of America.

Though conceived merely as an instrument of administrative co-ordination, the Indian railway system did not go without profoundly influencing the course of "economic

¹See Handbook of Commercial Information for India, 1937, p.70.

²Ibid, p.110.

³Principles, Vol. II, p.389.

evolution" in the country. The tragedy of the evolution of the transport system of India was that for all further railway construction, the existing "strategic" framework of transport became the foundation. By 1924, the details of the transport system had been fairly filled up. While India possessed in 1900, 24,760 miles of railway, in 1924 the country had 38,039 miles of transport and in 1934, India possessed 42,953 miles of railroad; but the whole system still retained the legacy of the original "strategic" railways. If we study the railway map of the country as it stood in 1924, we shall discover that Madras had by that time been directly connected with Calcutta by a railroad on the eastern sea-board through Nellore, Guntur, Bezawada and Vizagapatam. Bangalore had been directly linked with Bombay through the cotton-growing districts of Hubli and Dharwar and the southern Maharashtra districts of Londa and Belgaum, the last one being a military station; Hyderabad had developed its own state-aided railway system which was as anomalous as the main system of the country, and had sought direct communication with Bombay through Dhond and Poona. The rich Indo-Gangetic plain was woven into an intricate net-work of railways and the strategic points of Peshawar, Quetta and Mirjawa were effectively connected with the general railway system of the country.

The last half-century of the evolution of the railway system in India has been a half-century of stress and storm not only in the railway system itself but also in the economic life of the country. It is needless to enter into the financial aspect of the evolution of railways in India since any attempt to judge a *non-economic* transport system by the accepted canons of *economic* administration would only land us intellectual confusion, since considerations of administrative expediency would distort economic considerations in the working of "strategic" railways like the Indian railways. By 1869 itself the railway budget sat down with a deficit of Rs. 166½ lakhs. The Government resorted to the construction of "metre gauge" railway system to straighten themselves out of the financial muddle in which they had been landed by the guarantee system of railway construction. The problem of converting the Sindh and Punjab railway system from "metre" to "broad" gauge for *strategic* reasons again drove the Admi-

nistration to the guarantee system of railway construction and the Indian Midland was formed in 1882-85, which was later merged in the G.I.P. Railway. Naturally in 1877-78, the Famine Commission reported that the Indian railway system being nearly 5000 miles short to make the country secure against the recurring famines, was utterly inadequate to the transport needs of the country. To this period belongs railway construction in native states like Hyderabad and Baroda and also further consolidation of the existing lines. "The Penjdeh incident, which brought Great Britain and Russia to the verge of war," we are told, "necessitated the connection of our outposts at Quetta and Chaman with the main trunk lines. The sections through the desolate Harnai and Bolan passes were enormously costly; it is said that they might have been ballasted with rupees; the long tunnel under the Khojak Pass added largely to this necessary, but unprofitable, outlay."¹ In fact the general verdict on the entire railway system of India can only be; "*necessary but unprofitable.*"

Obviously then, consideration of the problems connected with the internal administration of the railways of the country reviewed and outlined by the Acworth Committee and the Pope Committee falls outside the scope of this book, which is mainly concerned with the dramatic role played by the Indian railway system in the "economic" evolution of the country.

The "uneconomic" distribution of the "traffic" and the "uneconomic" routing of the railways in India can be appreciated by the accompanying evidence.

Main Results of working of all Classes in Indian Railways treated as one system.

	1923-24	1924-25	1925-26	1927-28	1930-31	1932-33	1933-34
Unit mileage of passengers (in millions)	18,688	19,102	19,513	20,908	19,709	16,811	16,385
Freight ton-mileage of goods (in millions)	18,638	21,064	19,662	21,620	20,146	16,978	18,460

¹The Indian Year Book, 1937-38, p.650.

The Principal Railways in India and the Area and Trade Centres served by them.

Railways and Head Quarters	Mileage open.	Area served with principal internal trade centres.
Bengal-Nagpur (Calcutta)	3412	Eastern half of the C.P., Bihar and Orissa and down to Vizagapatam in Madras Presidency, Raipur, Nagpur, Jubbulpore, Amraoti.
B.B. & C.I. Rly. (Bombay)	3692	Northern half of Bombay Presidency, Central India and Southern Rajputana, Surat, Broach, Ahmedabad, Muttra and Delhi.
Eastern Bengal (Calcutta)	1998	Eastern Bengal, north-western Assam, northern Gangetic plain in Bengal to the foot of the Himalayas, Naihati, Murshidabad, Patna, Goalundo and Narainganj.
East-Indian (Calcutta)	4395	Southern end of the Punjab, U.P., Bihar and Western Bengal, Asanoli, Dhanbad, Gaya, Patna, Mirzapur, Benares, Allahabad, Cawnpore, Agra, Fyzabad, Lucknow, Sharanpur, Aligarh and Delhi.
Great Indian Peninsula (Bombay)	3727	Central portion of Bombay Presidency, Hyderabad, Western half of C.P., Central India, Lower part of the U.P., and Parts of Rajputana. Poona, Raichur, Ahmednagar, Nasik, Sholapur, Akola, Amraoti, Nagpur, Jubbulpore, Katni, Gwalior, Agra, and Delhi.
Madras and S.M. (Madras)	3230	North-Eastern and Central Madras Presidency ports of Hyderabad, Southern parts of Bombay Presidency and Mysore. Bangalore, Guntakal, Poona, Guntur, Bezwada, Ellore, Cocanada.

Nizam Guaranteed State (Secunderabad)	1348	Hyderabad State, Bezwada, Singareni, Hyderabad.
North-Western (Lahore)	6949	Sind, the Punjab, N.W. Frontier Province, Baluchistan, Hyderabad (Sindh), Larkana, Shikarpur, Jacobabad, Quetta, Rawalpindi, Lahore, Amritsar, & Lyallpur.
South Indian (Trichinopoly)	2526	Whole of Southern India. Trichinopoly, Madura, Salem, Coimbatore, Tuticorin and Calicut.
Assam-Bengal (Chittagong)	1306	Assam.
Bengal & North Western	2113	Northern portion of the U.P. and of Bihar.
Burma	2056	Upper and Lower Burma.

(For fuller information the reader is referred to Hand Book of Commercial Information for India, pp. 428-29, 1937 Edn.)

It will be easily noticed that few of the areas served by the country's transport system are industrial or agricultural areas, and that many of the new urban areas are either administrative centres, pilgrim centres or distributing centres. Of the bigger urban areas, Calcutta is the hub of jute manufacture intended mainly for export, just as Bombay is the centre for cotton textile industry. Calcutta's urban evolution is only recent and resembles the romance of the rise of Bombay as one of the biggest centres of modern Indian economic civilisation. The gathering momentum of the crisis in India's economic evolution has conspired with world depression in hitting hard every "distributing centre" of the country since the Great Depression of the present century. Thus while in 1897-98, the total value of trade handled by Calcutta was £58,310,250, in 1934-35, it had hardly risen to £69,980,269. Similarly Bombay also has felt the force of the linking of the economic system of the country with international economic order: while in 1897-98, Bombay handled a foreign trade of the value of £63,739,590, in 1934-35 she had to her credit only £144,599,177 in spite of the fact that she had become the main valve of India's foreign trade. Karachi's

phenomenal expansion in recent years is only *accidental*. At the time of the conquest of Sindh in 1843, Karachi was handling only £80,000 worth of total foreign trade. In 1863, as America was involved in Civil War upsetting the world's cotton markets Karachi's total reached £4,400,000. But it was not until 1878, when Karachi was effectively connected with the Punjab by railway, that Karachi sprang up into real eminence in the economic life of western India as a "distributing centre". But no one can pretend that in spite of her phenomenal rise in recent years as a big air-port and harbour, Karachi can boast of any "industrialisation". It has certain auxiliary industries like railway work-shops, flour mills, an optical factory and a carbon and ribbon manufacturing factory; nevertheless as the Official Chronicler naively confesses: "It cannot be regarded as an industrial centre, but it is of importance as the principal market and port of shipment for the surplus produce of North Western India and as a storage depot for the manufactures and foreign produce which the hinterland requires in exchange for the raw products sent down,"¹ a statement which is fundamentally true of many of the 'urban areas' of modern India. Even Calcutta has not escaped this kind of evolution: "There are several flour and paper mills," we learn from the same authority, "match factories, chemical works and rice mills, a large number of oil mills, iron foundries, tanneries... Calcutta is also an important centre for the export of tea and is the home of many miscellaneous industries such as soap, perfumery and toilet goods, enamelled and porcelain ware, glassware, galvanised ware, celluloid and horn articles, card-board boxes and tin cans, hats, waterproof cloth etc."²—an imposing catalogue of miscellaneous industries, no doubt, but hopelessly inadequate to balance the economic structure of the country. In a similar vein we read of Bombay: "The outstanding industrial features of Bombay... are its cotton spinning and weaving mills, 73 in number, dyeing and bleaching works and metal stamping factories and the Hydro-electric works at Lonavla and in the Andhra Valley. It is at the same time the chief distributing centre in western India for very large imports of cotton manu-

¹Handbook of Commercial Information, p.63.

²Ibid, p.110.

factures."¹ The chief industry of Rangoon, the same authority tells us, "is rice-milling."²

Nor can we seek consolation that this kind of urban evolution is confined only to coastal towns; for not a single urban centre has escaped the nemesis of the new technical evolution. This is but natural in a country where commerce followed in the wake of economic disintegration; but the peculiar feature of India's economic evolution was that because of the technical conjuncture essential for the propagation of the new industrial units, they could "localise" themselves only in the new urban areas created by the railway system of the country. That is how we discover the industrialisation of distributing centres like Bombay, Calcutta, Madras and Karachi. This kind of "localisation of industries" was accelerated by the fact that most of the industries established in India under the new regime were either manufacturing for a foreign market like the jute industry of Bengal or depending upon imported raw materials like the celluloid and plastic industries of Bombay and Calcutta. This kind of localisation is inevitable in any country where the transport system generated a technical evolution instead of itself being part of a co-ordinated economic evolution of the country.

That is how the whole country came to be caught in the inexorable circle of economic determinism. Naturally every new urban centre created by the transport system of the country has experienced the heavy hand of an unco-ordinated *technical transition*, parading as *economic evolution*. This becomes clear to us as we survey the evolution of the 'continental' urban centres of India. Of Cawnpore, a city of growing industrial and commercial importance, we are officially informed: "It is an important railway junction and...a convenient distributing centre for the imports of Manchester piecegoods, hardware and machinery" from Bombay and Calcutta; "the city also boasts of flour mills, oil mills, bristle factories and chemical works...."³ Of Delhi, we learn, "It is the junction for nine railway lines...There are cotton spinning and weaving mills, a biscuit factory, and several flour mills...It is

¹Handbook of Commercial Information, p.110.

²Opt. cit. p.110.

³Ibid, p.110-11.

also known as a buying centre for milch cattle and buffaloes.”¹ Of Amritsar it is said: “Amritsar is an important storehouse for grains and possesses two active “Option” or “Futures” markets for wheat.”² Agra “is a collecting centre for better qualities of hides”³ Lahore “is the chief trading centre for the agricultural produce of the province (the Punjab)”⁴ Benares “is chiefly of interest on account of the very considerable silk weaving industry established there.” Lucknow “is of interest as a distributing and collecting centre for the rich agricultural produce of Oudh,” while Nagpur in the C.P. “is famous for its loose-skinned *sangtara* oranges,” besides being a famous railway junction connecting the G.I.P. with the Bengal-Nagpur Railways. Dacca “is a large collecting centre for hides and skins,” while Laskar in Gwalior “is gaining importance in tobacco cultivation and manufacture of *deshi* cigarettes.”⁵ Jaipur is “famous for its artistic pottery and brassware”⁶ while Mysore “is the garden city of Southern India...is famous for the manufacture of sandalwood oil, silk, ivory and sandalwood carving and incense sticks.”⁷ Some of the towns noted above have certain auxiliaries like “gun carriage” factories, “domestic utensils” factories, sports goods factories, jewellery and carving industries and embroidery works—but so far as the general structure of the economic life of the country goes, they are of little or no significance.

“Under the stimulus of speculative construction and operation,” says Prof. Taussig, “the American community got its railways earlier and got more of them. This the community universally desired, and for this it was willing to pay handsomely. Our political and industrial policy has been dominated by an insensate desire for swift development, for unlocking the land and its resources, for the utmost increase in numbers and wealth.”⁸ Under a transport system which was born neither of “an insensate desire for swift development” nor of a plan “for unlocking the land and its resources”, India experienced, what may be called in Prof. Robbin’s language, a mere “technical” transformation, not an economic evolution.

¹Ibid, p.111.

²Ibid, p.111.

³Ibid, p.111.

⁴Ibid, p.111.

⁵Ibid, p.112.

⁶Ibid, p.113.

⁷Ibid, p.113.

⁸Principles, Vol. II. p.415.

This *technical* evolution had its own special effects on the economic life of the country: it set up an internationally determined price structure which not only prevented the growth of large-scale farming in the country but also hindered the evolution of an *effective* industrial system in India, by widening and unsettling the contemporary circle of exchange; it profoundly distorted the existing scale of preferences through its distributing centres, producing not only rigidity in inter-regional and inter-occupational movements of labour but also creating what is commonly known as, "middle class unemployment"; finally, it created the artificial regime of "money" with its multitudinous problems of economic adjustment.

We have seen earlier how the breakdown of the economic "isolation" of the country prevented the evolution of large scale farming in India. Had the evolution of transport followed the course outlined by Sir Arthur Cotton and had the country been woven into an intricate network of canal-highways and feeder railways, not only would there have been large-scale farming in rural zones, but the country would have evolved a stable and efficient industrial system. The railways broke up the solidarity of the country in three ways: they distorted the scale of occupational preferences by bringing India into the orbit of international competition; they undermined the structure of production both in rural and urban areas by a regime of international competition and co-operation involving changes and shifts in the very foundations of the country's economic civilisation—from economic conservation to competitive exchange—and also by the urgency of keeping urban and rural cost-structures in close adjustment with an international market in primary and secondary goods; and finally, they broke up the system of co-ordination between urban and rural economic zones by substituting the old regime of co-ordination with a new scheme of "exploitation". Further two powerful factors have seriously undermined the foundations of our urban economic structure: the essentially *distributive* character of urban evolution in India and the excessive dependence of our industrial structure on international economic adjustments for its own stability. We shall investigate deeper into these aspects of urban evolution presently.

At no time in the course of its long and "glorious" history was India an essentially industrial country. Almost all the industries that India possessed in pre-Moghul and Moghul days were "luxury" industries or, what Dr. Anstey is pleased to call, "special" industries. Because of the presence of *positive* checks of war and occasional famines on the increase of population, the volume of subsistence was kept, as we have observed earlier in the book, relatively balanced to the volume of population. Nor were economic problems of industrialisation as complicated as they are to-day. Naturally there was no abnormal strain on the mechanism of adjustment between subsistence and the dynamics of population. It is essential to note that earlier industrialisation in India was not planned as a conscious ameliorative measure for any pressure of population on the soil. Many of the old "urban" industries were "luxury" industries with a "special" market for them. Thus brassware industries of Benares and Madura catered to a "pilgrim" market. Similarly the shawl industry of Kashmir and the inlaying and damascening industries of Amritsar and the silk industry of Murshidabad, not to speak of the famous muslin industry of Dacca. None of these industries catered to any wide market of consumers, nor did they distort the average man's structure of economic preferences in contemporary India; economic life was severely "regionalised"—almost all the articles entering the rural circle of exchange were produced under a decentralised system of economic adjustments; those industries which were famous for the high artistic skill of the craftsmen were *special industries* resembling the modern "perfumery industry" of France. Other heavy industries like iron-smelting and coal mining were also localised, while the textile industry—the manufacture of the common folks' clothing requirements—was decentralised in every rural zone. The village, the primary economic unit of this corporate economy, was self-sufficient and insulated so far as its day to day economic adjustments were concerned.

Nor was the pressure of population on the land resources of the country increased because of the decay of these special industries; it is true that by their loss, India lost the high artistic skill of her artists and craftsmen which had

created and carried the Dacca Muslin over the seven seas to the courts of the Roman Emperors and the Egyptian Paroahs; but they were all lost in the ordinary course of, what Condorcet would call, the progress of the *Human Spirit*. If we are to deplore, with the late Justice Ranade, the passage of the skill which had cast the iron pillar at Delhi, we must also be allowed to shed our tears over the loss of the engineers of the Egyptian pyramids. Yet the economic life of modern Egypt is no more muddled by their loss than is the economic life of modern India by the passage of the ancient Indian artists and craftsmen. It would be the height of economic heresay to argue that the present economic muddle of India is the direct consequence of the ruin of old centres of arts and crafts like Dacca, Murshidabad, Srinagar and Benares. We must learn to realise that all the troubles of modern India are the consequence of an unco-ordinated technical evolution in the past century of British domination.

It may be asserted, however, without fear of any serious contradiction that one of the mainstays of the old economic order in India was the textile industry which had decentralised itself over the rural regions of the country. Though heavy industries like iron-smelting were developed in our country as war-time essential and peace-time auxiliary industries, India did not possess any considerable foreign trade in them because of the understandable difficulties of transporting heavy goods across the seven seas under sail and wind. The secondary industries of the old economic order in India were eminently regionalised; the blacksmith was one of the most important craftsman in the village community. The little trade that India possessed with foreign countries was in "special articles". Thus Ranade tells us that Damascus blades were manufactured out of Indian "wootz" or steel, that Persian merchants carried on a good amount of trade in Indian steel throughout Asia and asserts that "Indian steel found once considerable demand for cutlery even in England."¹ That India did have an appreciable trade in silk and cotton industries is evidenced from many quarters. But there is no doubt that considering the serious limitations put on the movements of goods and men before the application

¹Essays, pp.159-60.

of steel and steam to ocean and land transport, the trade cannot have been of a size or variety so as to permanently cripple the economic life of a whole sub-continent.

What actually caused the dislocation in the structure of vocational preferences was the *conjunctur* which the breakdown of economic insularity in the nineteenth century set up in India. The new *conjunctur* not only included the influx of cheap machine manufactured articles which seriously undermined the solidarity of the rural economic structure by rendering the old units of secondary production economically "incompetent", but also gave the country the "stagnation" of internal peace and tranquillity which changed the fundamental aim of the national productive apparatus from that of war-time emergency to peace-time adequacy, besides generating in the country a serious discrepancy in the ratio between production of subsistence and the progress of population. Thus in the new *conjunctur* the problem of economic adjustment between production and population was vitiated by the presence of the two factors: administrative peace and economic competition, the former widening the gulf between the progress of population and the production of subsistence and the latter complicating the problem of adjustment by injecting a new factor into the economic system of the country which was hitherto unknown to exist; viz., production for profit on an apparatus designed for subsistence. In this general economic stampede, the new fangled "distributing centres" proved to be the most efficient "disturbing centres" which released economic and non-economic factors with immense potentialities for undermining the foundations of the economic stability of the country. It is this process which Sir Theodore Morison mistook for the dawn of a new economic civilisation in India.

Thus the two great factors responsible for the economic dislocation of India were: urban evolution and the imposition of the competitive system of economic adjustments on a subsistence type of production. Urban evolution affected economic progress in several ways: firstly, it diverted or dislocated existing trade routes and markets and destroyed the economic insularity of the rural zones; secondly, it created the Indian capitalist system involving not only the constitution of competitive market but also

the institution of a seasonal labour market and the exploitation of the consuming masses through all the artificial evils of the capitalistic system of economic administration like speculation, cornering and monopoly, not to speak of preferential protection; thirdly, instead of generating rural exodus and creating urban zones of economic solidarity, it impeded economic adjustment by the *uncompetitive* cost-structure it attempted to maintain all over the industrial system and the consequent inability of the industrial units either to liquidate rural distress or to face international competition even in the home markets and finally, it not only got caught in the instabilities of world economic maladjustments but also produced in its turn the socio-economic problem of urban distress and urban unemployment.

The Industrial Commission thus described the economic life of urban India before the advent of railways: "There were not wanting other and larger centres of trade, situated on the few recognised routes of land transport, on navigable rivers, or on the sea-coast, where a market existed for the articles to which their rarity or costliness lent sufficient value to offset the expense of carriage from a distance. These were few, for communications were difficult and insecure. Precious metals, artistic manufactures, and a few rare drugs and dyes made up the bulk of this traffic, which was mainly directed to the ports from which trade with foreign countries was carried on, or to military and administrative centres. The courts of Indian rulers had always attracted to themselves the surplus grain of the countryside to feed the armies, officers and dependents of the Chief. These and the traders and artificers who supplied their needs, made up the population of an old Indian capital. From an industrial point of view, the most interesting section of this population was the class of artisans who were engaged in producing not only arms and leather accoutrements, but rich textile fabrics, carved stone, wood and ivory, wrought metal, jewellery, and other articles of luxury, often of exquisite workmanship and high artistic value. Even to-day, the famous centres for the production of Indian artwares are the old capital towns. The earnings and social position of such craftsmen were, in time gone

by, out of all proportion to those of the less skilled workers in the villages or small towns."¹

From the foregoing succinct summary of the fundamental characteristics of *pre-transition* urban centres, we can deduce some of their main economic traits. The old urban centres never affected the economic solidarity of the rural zones either by breaking through the framework of rural economic life with their urban manufactures or by exploiting the rural markets in primary products. Urban commerce was confined to articles which had special value because of their relative rarity—the co-operative commerce between rural and urban areas being equated with the transfer of precious metals or special urban goods from urban to rural centres in exchange for rural produce. The wages of urban workers like those engaged in ivory carving, wood-engraving, sculpture, stone-masonry, manufacture of arms and accoutrements, manufacture of *superfine* textile products, jewellery and metalware were 'high enough to ensure an adequate movement of the finer rural artists and craftsmen to urban centres to keep up occupational balance. The old urban centres did not have the problems of congestion and *chawl* which have darkened the urban life of modern India, nor did they create the economic problems of an impersonal relationship between capital and labour that have definitely aggravated the problem of higher conservation in India to-day.

What are the special features of the new *distributing centres* created by the evolution of the new transport system in the middle of the nineteenth century? The new distributing centres broke down the economic stability of the rural zones and destroyed their economic solidarity firstly by the influx of imported articles of machine manufacture into the rural zones of the country with which the indigenous producers, with their antiquated methods of secondary production, could not compete effectively, and secondly, by imposing on the country the burden of a competitive economic adjustment both in rural and urban areas—in the urban and rural markets both for agrarian and secondary products—thereby generating in the country a gross misdirection of productive resources in an attempt to adjust a subsistence type of production with an

¹Report, pp. 2 and 3.

international circle of exchange. These new centres further led to "an increasing degree of local specialisation in particular crops, especially in those grown for export. Cotton is now no longer planted in small patches in almost every village where conditions are not absolutely prohibitive, but is concentrated in areas which are specially adapted to its various types.....The peculiarly favourable climate of Bengal has tempted the ryots to extend their jute cultivation, often at the expense of food stuffs, while sugarcane is disappearing from tracts not specially suited for it."¹ The effect of such an agrarian specialisation on rural industries can hardly be ignored. It meant that those decentralised rural industries like cotton spinning and weaving and gur manufacture, had to depend on inter-regional transfer of raw materials in a competitive circle of exchange for survival under the new economic dispensation. Even if, "specialisation" was essentially a cost-reducing process, the urban and rural industries had to buy their raw materials in the open market for a money price; while formerly they depended on the mechanism of barter adjustments to keep them stocked with the raw materials required for their production processes. Naturally as a result the rural industries languished. "A visible sign of this movement," wrote the Industrial Commission, "may be seen in the abandoned stone cane mills lying near villages in the arid plains of Central India, which now prefer to keep their scanty stores of water for other crops and pay for their sugar by the sale of their cotton."² It goes on to say further that "the people have been led to make this change by the cheap railway and steamer transport and by the construction of roads, which, while facilitating the introduction of foreign imports, also render available to the farmer in his distant and land-locked village a large share of the price offered by far-off nations for articles which once merely supplied the needs of Indian rural life."³ We shall revert to an examination of the advantages of imposing a *laissez-faire* competitive market on an apparatus of production designed for subsistence on a later occasion: it is nothing short of cruel hypocrisy to say that the Indian agriculturist secures "a large share of

¹Indian Industrial Commission, Report, p.3.

²Ibid, p.3.

³Report, pp.3-4.

the price offered by far-off nations for articles" produced by him when the same Commission reports a few pages further: "The export trade from country districts suffers from the *existence of an undue number of middlemen who intercept a large share of profits*,"¹ and further goes on to frankly admit in the same breath: "the position of a peasant farmer, with grain, seeds or cotton to sell, and at the same time heavily indebted to his only possible purchaser, **effectually prevents him from obtaining a fair market price for his crop.**"² Under the aegis of the new distributing centres, not only was the agriculturist prevented from getting "a fair market price" for his crops but the stability of the rural industrial structure was profoundly damaged, firstly, by its dependence on inter-regional transfer of raw materials and secondly, by competition from imported articles. The rural industries simply collapsed. The real economic disintegration of India began at Dundee in 1835. Thus though the rural population began to consume "kerosene oil, matches, collapsible umbrellas and... better and cheaper cutlery and soap," their back-bone was broken by the new distributing centres through the twin factors of agrarian specialisation and centralisation of secondary production, which caught rural economy in a death-grip since the advent of the new transport system. Because of the poverty which descended on the rural population beginning in the fifties of the last century "the effect of the use of imported and factory-made articles on the standard of comfort of the rural population has been, however, generally small."³

Consequently the commerce of the new urban centres is confined to the movement of primary produce from rural zones and the distribution of imported articles of manufacture to the various centres of consumption. Such an evolution implies serious limitations on the variety and structure of industrial enterprise in the urban areas.

"A detailed examination of modern industrial enterprise in India," wrote the Indian Industrial Commission nearly quarter of a century ago, "discloses the fact that, while during the last half century there has been considerable progress in

¹Italics mine—Report of the Indian Industrial Commission, p.5.

²Ibid, p.5.

³Report of the Indian Industrial Commission, p.7.

respect of the investment of capital, it has been upon comparatively restricted lines and there has been little enterprise in new directions. In consequence, the major industries of India are few in number and have been... confined to the textile and leather industries and to mining."¹

Even after a century of economic evolution, India's industrial activities are seriously circumscribed as the evidence given below indicates. According to official sources of information, the number of mills actually at work in the year 1933-34 in jute and cotton industries were "99 and 344 respectively."² Another industry which has skyrocketed in recent years is the sugar industry. Ever since the grant of protection to sugar industry in 1932, the progress of the industry has been simply catastrophic. "Prior to 1932-33 there were only 31 cane factories in operation but 27 and 65 new factories were added during 1932-33 and 1933-34, respectively and another 19 new factories were built for working in 1934-35, making a total of 142 years."³ The verdict of the Official Reviewer of trade conditions in India about the recent expansion of the sugar industry can be taken as symbolical of the general tendency of the industrial evolution of India. "The progress of the sugar industry has been very great in the last seven or eight years but in recent years the growth has probably outstripped the economic optimum under present conditions."⁴ There are other minor industries like paper, porcelain, plastics and soap; but the general tendency of industrial expansion of India is along severely restricted channels. The narrow channel through which our industrial evolution has advanced clearly points out the fundamental characteristic of our industrial development viz., that industrial development in our country has been, all these years, *competitive and not complementary*. Industrial establishments have followed blindly their western pattern instead of evolving themselves to suit the indigenous *conjuncture*; that is how we have the tragedy of industrial localisation following closely

¹Report, p.210.

²Handbook of Commercial Information for India, pp.147. & 173.

³Handbook of Commercial Information, p.397.

⁴Review of the Trade of India in the year 1937-38, p.48.

the evolution of the country's anomalous transport system, thus complicating the cost-structure of the units with the freight on raw materials transported to the factory and on the movement of finished goods to their markets even within the country itself; that also explains why the industrial units have been concentrated in the urban areas of the country creating grave problems of economic and social adjustments and generating endless friction in the working of the Indian labour market and creating the problem of adjusting urban cost of living with a low urban wage level. We shall presently study these problems in detail.

The accompanying table gives us an idea of all the industrial establishments with their labour force for the half-century beginning from 1891.

Industrial Establishments in India with their Labour Force.

Year	No. of factories	Average daily workers (including women & children)
1894	815	349,810
1914	2,936	950,973
1930	8,148	1,528,302
1934	8,658	1,487,231
1935	8,831	1,610,932

"The total capital of organised large-scale industries," writes Sir M. Visvesvaraya about India, "is estimated by experts at about 700 crores. The share of the Indian people in it is probably not more than Rs. 300 crores."¹ According to the same author, United Kingdom with only "13 per cent" of the population of India had in 1928, 107,500 industrial and commercial establishments and in 1932, the capital outlay in industrial companies alone was Rs. 7,067 crores. The United States of America with "35 per cent" of the population of India possessed in 1929, 174,136 industrial establishments with an aggregate capital outlay of Rs. 23,000 crores. Canada with a population hardly "3 per cent" of that of our country had in 1929 24,020 industrial establishments with a capital outlay of Rs. 1,445 crores

¹Planned Economy for India, p.37.

and Japan with only "19 per cent" of the population of India had in 1928 13,711 industrial establishments with a capital outlay of Rs. 1,009 crores. And Sir M. Visvesvaraya goes on sadly to comment: "No such good fortune has fallen to the lot of India."¹

Why is it so?

The fundamental characteristic of Industrial evolution is, as we have already noted, that the industrial units have to seek, like Indian agriculture, economic adjustment with an international competitive market. Such an evolution has naturally set certain obvious limitations on the pace of industrial expansion. We can study the major problems of industrial evolution in India by an analysis of some of the "representative" industries of the country, such as for instance, the cotton industry.

The first cotton mill in India was started, as every student of the history of the development of the textile industry in our country knows, in the year 1838 at Ghosery near Calcutta in eastern India, and the second was started in Bombay in western India in the year 1853. Before the twentieth century had reached its third decade, the process of localisation of the cotton industry in Bombay presidency was complete. In 1934, out of 344 mills in the whole of the sub-continent, 191 were found localised in the Bombay presidency, 17 in Bengal, 22 in the United Provinces, 29 in Madras, 11 in the Central Provinces and Berar, 9 in the Punjab, 4 in Delhi, 4 in Ajmer-Merwara, 1 in Burma, 1 in Bihar and Orissa, 3 in French India and the rest in Indian India mostly in Central India and Baroda. Most of the mills are localised in administrative headquarters or railway junctions.

In Bengal the cotton industry is centred near Calcutta while the cotton-growing regions are in Chittagong hill tracts lying to the east of Calcutta, Mymensing and the districts of Bankura and Midnapur—all within a radius of about one hundred miles with Calcutta as the centre. In Bombay, the cotton tract lies in Baroda and the Kathiawar States in the north, Broach and Surat in southern Gujerat, east and west Khandesh, Nasik, Ahmednagar and the nor-

¹Planned Economy for India, pp. 37-38.

thern part of Bijapur in the Deccan including Dharwar, Belgaum, Kolhapur and Sangli in Karnatak and parts of Sindh.

The Surat and southern Gujerat cotton-growing areas are approximately equidistant from Bombay and Ahmedabad while the other cotton growing regions are served by regional industrial units which have developed in recent years. Still the problem of transporting the raw material from the agrarian areas to the factory-head is one of the major problems of the cost-structure of the older units of the industry.

The situation is no better in Madras. Though cotton industry has, of late, decentralised itself in the cotton zones as at Madura and Coimbatore, Madras continues to be one of the important centres of the Indian cotton industry in south India. The Madras units have to rely on the transport of their raw materials from the cotton growing areas of the presidency so far-flung as Bellary, Anantapur, Karnool, Cuddapah in the Deccan table-land; Guntur, Kistna, Nellore and Godavari on the Coromandal coast; Tinnevely, Ramnad, Madura, Trichinopoly and Coimbatore in the south of the peninsula.

Why was the cotton industry localised so far from the sources of raw materials?

The predominant factor determining the locale of the cotton industry like that of any other industry organised on the "factory" model was the *technical* factor, *not the economic factor*. Mill machinery had to be imported from abroad and the difficulty of transporting heavy mill machinery to places outside the routing of the railway system determined in no small degree the localisation of the earlier industrial units in port towns like Bombay, Madras and Calcutta. Another factor influencing the localisation of earlier units in the new urban areas was the existence of skilled technical labour which was essentially European in earlier days in these administrative areas. Nor were spare parts of mill machinery available readily outside the new urban areas since they had all to be imported, as is the case to this day, from foreign countries. Nor was "power" which had to be generated from coal and steam easily available outside the areas served.

by the railways; and it was cheaper in port towns. The new-fangled factories, like the railways, had to depend for the source of their energy on imported coal; for we learn from the Indian Industrial Commission that "coal was first mined in Raniganj for other than local requirements in 1854 when the East Indian Railway entered the Bengal coal field."¹ but the cost of carrying coal from the pit-head to the places of consumption kept many industrial establishments and railways on imported coal which was cheaper when due allowance was made for the difference in quality.

During the period of expansion of the industry, from 1898 to 1918, there was very little to disturb the adjustment between production and marketing of cotton piece-goods and yarn. So great was the expansion that we learn: "Indeed India at the outbreak of war ranked as fourth among the countries of the world manufacturing cotton textiles being exceeded by Great Britain, the United States and Germany only."² This was so because of the special *conjuncture* which kept the Indian units relatively sterilised against severe competition, in the pre-war and war periods.

In spite of the upward movement in the cotton industry, complaints regarding the railway "rates" began to be heard from all industries even while the war was waging in Europe. "We received from witnesses," wrote the Industrial Commission in 1918, "a number of complaints to the effect that Indian railway policy does not tend to foster the industries of the country."³ "The governing principles" of rate-fixation according to the Industrial Commission was "that internal traffic should be rated as nearly as possible on an equality with traffic of the same class over similar distances to and from ports. This principle must of course admit of numerous exceptions, in consideration of the competition of water-transport, the cost of working particular sections of line, the convenience of handling the advantage of return with full loads and *many other factors*."⁴

¹Report, p.18.

²Hand Book of Commercial Information, p.172.

³Report, p.204.

⁴Report, p.205. *Italics mine.*

It is unfair to expect any railway system run on *economic* considerations of profit and efficiency to charge a *uniform rate* when the traffic to and from the new "industrial-cum-distributing centres" is hardly *balanced*. For instance in 1913-14, Bombay had an inward traffic of 3230 thousand tons and only 1642 thousand tons of outward traffic!

The complaints about the railway rates were merely a recognition that *economic* factors than *technical* factors ultimately must determine localisation of industrial units, and that cotton industry along with the other industries of the country was the victim of a *technical localisation* and preferred to blame the railway policy for the rigidity of its cost-structure in a severely competitive market for secondary products. "Though the first Indian cotton mill was opened in Calcutta and other attempts have been made to establish a cotton industry there, these, with few exceptions, have been far from successful," admits the Industrial Commission; "Calcutta is no doubt less favourably situated in respect of the cotton tracts generally than Bombay, although much of the cotton consumed by the latter reaches it from places as distant as those from which Calcutta draws its supplies, while Bombay is at a disadvantage in respect of fuel, a difficulty now to some extent supplemented by water power."¹ The relatively greater localisation of the cotton industry in Bombay can only be explained by the fact that Bombay enjoyed a better advantage than Calcutta in regard to the near-western markets of Aden, East Africa and Egyptian Sudan.

The economic disabilities of the units of the cotton industry localised in ports were hardly felt during the artificial period of expansion which the war set up in the cotton markets in the near western and western zones. While India exported in 1913-14 cotton piecegoods of all descriptions of a total value of £1,525,099, in 1918-19 her exports of cotton piecegoods had shot up to £4,544,099. The expansion of cotton industry inland since the first decade of the present century with relatively better "economic" advantages of nearness to raw materials and markets, and the emergence of Japan as a severe competitor both in the home market and the international markets for cotton goods have in no small degree dissolved the castle of excessive profits which the cotton magnates had so fondly conjured up during the last war.

Most of the post-war difficulties of the cotton industry are due to three factors: increased competition from abroad, the dislocation of the cost-structure because of the rigidity of the wage-structure to respond to competitive conditions, and the disappearance of the *technical advantages* which the older units of the industry had secured in the "urban areas" as the industry expanded upcountry; and finally, the loss or contraction of mid-western markets and the difficulties of consolidating home-markets under a rigid, unresponsive cost-structure.

The severity of the competition from Japan becomes clear to us by a study of the accompanying table.

Imports of Cotton Twist, Yarn and Piece Goods from Japan

Goods	Pre-war average	War average	Post-war average	1937-38
Cotton twist and yarn lbs.	458,000	7,424,000	16,786,000	14,644,000
Grey piece goods; yds.	2,559,000	81,171,000	96,727,000	108,922,000
White; do.	48,000	3,323,000	2,623,000	64,889,000
Coloured, etc.; do.	521,000	13,095,000	14,049,000	132,324,000

Because of the change in the *conjuncture* of the Indian cotton industry we are told: "Indian mills in recent years have been increasing the production of the finer type of piecegoods, which were formerly imported, and as a result, the imports of foreign cotton have been rising."¹

Imports of Raw Cotton into India.

Pre-war average		War average		Post-war average		1937-38	
'000 Tons	'000 Rs.	'000 Tons	'000 Rs.	'000 Tons	'000 Rs.	'000 Tons	'000 Rs.
12	1,02,22	58	44,44	12	2,01,01	134	12,12,95

India imports her finer cotton from British East Africa, the United States of America, Egypt and Anglo-Egyptian Sudan.

Naturally the imports of the finer types of yarn and piecegoods have been reduced as evidenced below:—

¹Review of The Trade of India, 1937-38, p.118.

Detailed Statement of Imports of Cotton Twist and Yarn

(In thousand lbs.)

	Pre-war average.	Post-war average.	1937-38
No. 1 to 20	1,375	6,987	208
No. 21 to 30	4,374	3,526	466
No. 31 to 40	23,213	20,580	2,582
Above 40	7,602	6,291	4,327

Imports of Cotton Piecegoods (in thousand yards)

From United Kingdom	2,549,330	1,186,889	266,608
„ U.S.A.	10,486	8,421	608
„ Japan	3,128	113,399	306,045

Nor can it be asserted any longer that the external market for the cotton industry of the country can long be maintained in tact. The only markets which are relatively steady are Egypt, Straits Settlements and Siam for cotton twist and yarn and Straits Settlements and Portuguese East Africa for grey cotton piecegoods, and Iran, Iraq, Straits Settlements, Ceylon and Portuguese East Africa for coloured piecegoods. While in the pre-war years the total of the cotton twist and yarn consumed by our external markets was 192,844 thousand lbs., in 1935-36 it was only 19,044 thousand lbs. and by 1937-38, it had recovered to 40,124 thousand lbs., as a consequence of the reduced competing power of Japan which was engaged in the Sino-Japanese conflict. Similarly, while India exported cotton piecegoods (grey) during pre-war years averaging 47,414 thousand yards per year, in 1937-38 she could export only 40,828 thousand yards and of coloured piecegoods the figures recovered from an average export of 42,384 thousand yards in pre-war years to 95,958 thousand yards in 1937-38. the principal increase in demand coming from the Straits Settlements, Ceylon and the rest of the unspecified markets. In comparing the statistical returns for the period corresponding to the years of the Sino-Japanese conflict we can do no better than record the statement of the Official Reviewer of the trade of India for the year 1937-38; "On the other hand, fall in the price of raw cotton and the weakening of Japanese competition were factors of great import-

ance to the mill industry."¹ Both the fall in the price of cotton and the weakening of the competing power of Japan in the eastern markets for cotton products were due to the Sino-Japanese conflict since Japan was also the biggest consumer of our raw cotton: out of a total export of raw cotton of 2,407 thousand bales of 400 lbs. in pre-war years, Japan alone consumed 1,012 thousand bales and by 1936-37, Japan took over twice the quantity of raw cotton and increased her imports from India to 2,334 thousand bales out of a total export of 4,140 thousand bales; in other words, Japan was consuming over fifty-per cent of our total exports of raw cotton while in 1937-38 the imports of raw cotton into Japan from India had slipped back to 1,359 thousand bales.

Similarly in imports, while we imported from Japan in 1935-36 433,426 thousand yards of cotton piecegoods of all descriptions, our imports fell to 370,021 thousand yards in 1936-37 and to 306,045 thousand yards in 1937-38.

Naturally under these "artificial" conditions, the cotton industry of the country has shown marks of recovery. "There is no doubt," we assured from authoritative sources, "that conditions in the cotton mill industry are at present healthier than they have been for a long time past,"² the last time the industry had a comparable recovery was during the hectic days of the Great War.

Production of Cotton Piecegoods in Indian Mills (In thousand yards).

Articles.	Pre-war Average	War Average	Post-war Average	1937-38
Grey and				
Bleached goods	854,141	1,065,855	1,209,684	3,190,647
Coloured piecegoods	251,353	378,187	466,182	893,629

It would be hardly wise to judge the "solidarity" of any industry by its strength in an *artificial conjuncture*. Ever since the "sterilised" conjuncture of the Great War was dissolved in a renewed welter of international competition, the cotton industry has had an unbroken career of mal-adjustment, the Bombay units of the industry bearing the

¹Review of the Trade of India for 1937-38, p.30.

²Ibid, p.30.

brunt of the process of disintegration. Even as early after the war as 1925, we learn that "the state of the industry was such that the mill owners decided to reduce the wages of their employees,"¹ precipitating a labour crisis of unprecedented ferocity involving 125,000 workers by the end of September of that year. It had become increasingly clear that there was "a very threatening cloud hanging over the Bombay Cotton Industry."² Not even selective protection could give the industry even the semblance of stability for the simple reason, the disease was too deep-seated to be controlled by mere exogenous palliatives. Even as late as 1931, the Official Reviewer could declare: "The textile mills in Bombay are also having frequent labour trouble."³

The main cause of the present *impasse* in the cotton industry of the country is typical of the maladjustments of any industrial structure which has been developed merely on the strength of technical factors rather than on a careful assessment of economic conditions and is consequently disabled in a severely dynamic competitive market with a rigid cost-structure. In the case of the older units of the Indian cotton industry the difficulties of adjustment arose not because of a wage-structure which refused to be *competitive*, not even because of "the huge agency commissions, mismanagement and incompetence of mill owners," as Mr. Joshi complained in 1925,⁴ but by a combination of circumstances both within the industrial structure and in the secondary markets which seriously undermined the competing power of the Indian industrial units.

We have dealt earlier with the technical factors which have influenced the localisation of the cotton industry in the new urban centres. We have now to deal with the factors which have contributed in no small measure to "freeze" the cost-structure of the industry.

Two attempts have recently been made by the cotton industry to bring its cost-structure into co-ordination with the movements of prices in the secondary markets: firstly,

¹India in 1925-26, p.31.

²Prof. Coatman in India in 1925-26, p.32.

³Review of the Trade of India in 1930-31, p.1.

⁴See India in 1925-26, p.53.

by a reduction of wages and secondly by attempting to control price-movements through "protective tariffs."

It is an undeniable fact that wages are an important element in the composition of the cost-structure; but Indian wage-structure can never be accused of being a disturbing factor in the cost of production. It has always been low and if any one were to say that the Indian industries are handicapped in their adventure in a competitive market by their wage-structure, he only betrays a woeful lack of any sense of relative valuations. It is only a desperate scheme of adjustment which attempts, in a country like India, to keep the industrial cost-structure competitive by a severe regulation of wages.

Writing at the dawn of the present century, Romesh Dutt said: "In large towns like Calcutta and Bombay, an able bodied unskilled labourer earns 4d. a day or 10s. a month."¹ But the Great War pushed up the wages by incorporating the dearness allowances granted during the period of contracting real incomes and expanding industrial activity under boom conditions. In spite of heavy reductions in wages during the subsequent period of depression since 1933, the wages were as under for the different grades of labour:

Rates of Wages in India, (1934-35).

Occupations	Cities			Towns			Mofussils		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Carpenters I Class	2	8	0	2	4	0	2	0	0
Carpenters II Class	1	12	0	1	8	0	1	4	0
Black-smiths	2	0	0	1	8	0	1	4	0
Hammer-men	1	4	0	1	2	0	1	0	0
Cobblers	1	4	0	1	2	0	1	0	0
Semi-skilled labourers	0	14	0	0	12	0	0	10	0
Unskilled labourers (men)	0	12	0	0	8	0	0	6	0
Unskilled labourers (women)	0	10	0	0	6	0	0	4	0

It is sheer pedantry to assert that the older units of the cotton industry can get over difficulties of their rigid cost-structure by a progressive reduction of wages. Their "localisation" is such that they cannot bring down their wages to the mofussil level without permanently damaging the urban labour market. Nor is such a reduction alone,

¹India in the Victorian Age, p.607.

without the assistance of the other universally accepted "cost-reducing" processes like more efficient machinery, standardisation of products and more economical transport, going to give them a cost-structure which will enable them to face foreign competition even in the home-markets.

Another factor complicating the problems of adjustment of the older units of the industry is the presence, in the country since the twenties of the present century, of a severe tendency towards the *regionalisation* of the cotton markets. The cotton mills of Ahmedabad and Bombay can no longer think of exploiting the rural markets of southern, central or eastern India which have developed their own regional units of textile industry, unless the older units are in a position to "dump" their goods with the double purpose of crippling their sister units and of driving out Japan from the home markets. The more recently established units of the cotton industry are powerful competitors against whom the older units are at a definite technical and economic disadvantage. The newer units not only enjoy the technical advantage of up-to-date textile machinery and processes but also have the economic advantages of nearness to the markets, closer touch with the changes and shifts of regional fashions, cheaper *mofussil* labour, vicinity of raw materials and more "efficient" transport to the regional markets.

If the older units have to face competition from the newer units of the cotton industry with a relatively better equipped cost-structure, the entire cotton industry is haunted with the prospect of severe competition from foreign countries with a still more "competitive" cost-structure like, for instance, Japan. The present artificial boom in the cotton industry since the outbreak of Sino-Japanese conflict, which has elicited from the President of the Millowners' Association of Bombay, (in 1937): "The results of the year's working ought to be better than they have been over a decade as far as Bombay is concerned."¹ is only a passing phase in the history of the Indian cotton industry. Nor are the difficulties of the Bombay industry "specific"; they are general in the entire cotton industry as the accompanying table clearly indicates, but they happen to be virulent in Bombay.

¹Review of the Trade of India in 1937-38, p.30.

Working of Cotton Industry.

Year	No. of corps.	Profits Rs. '000	Profits from previous year Rs. '000	Chain index Base 1928-100
1928	58	1,23,02	..	100
1929	58	1,21,97	1,23,02	99.1
1930	58	46,68	1,21,97	37.9
1931	58	64,63	46,68	52.5
1932	58	1,01,85	64,63	82.8
1933	58	41,74	1,01,85	33.9
1934	58	1,10,85	41,74	90.1
1935	59	1,07,70	1,08,95	89.1
1936	59*	1,17,74	1,06,53	98.4
1937	26	78,09	65,33	117.7

*Companies are not the same as in previous years.

(Review of the Trade of India, 1937-38, p. 31.).

Naturally the industry has invoked control of the home-market through "selective" or "discriminatory" protection as an instrument of economic adjustment. In dealing with the subject of "selective" protection, we must widen our area of observation to cover all the industries which have in recent years sought an artificial control of the competitive mechanism of the home-market in a desperate bid to get over their structural and functional deficiencies.

With regard to foreign competition, it would be well if we realised that "a nation cannot be undersold in its home market in all its industries at once, either as a result of lesser efficiency or as a result of excessive wages."¹ If Japan has been able to undersell the Indian cotton industry in the home markets, we must at once realise that there is something wrong with the structure of the indigenous cotton industry which has failed to keep its cost-structure adjusted to the price-movements in the market. Nor has even Japan been able to compete with India in the markets for the "special commodities" like brassware, lace industry, saree-weaving, shawl industry, incense and perfume industries, and even in the carpet industry. These are industries which do not so readily yield to the technique of large scale manufacture and in such industries requiring

¹Tariffs, the case examined, p.44.

application of greater individual skill and pattern, the small artisan is still holding his own. Of the carpet industry, which has admitted of a greater degree of technical transformation, we read as late as 1937: "The industry has much expanded in Cawnpore where large mills under European and Indian management are manufacturing with machinery larger size suitable for tents and bungalows and turning out considerable quantities for export to England and America. Other provinces where cotton carpets are made are the Punjab chiefly in the districts of Multan, Amballa and Hoshiarpur, the Delhi province, the Bhawalpur State, Patna city, and the Champaran and Shahabad districts of Bihar and Ayyampet, Bhavani, Adoni and Kurnool in the Madras Presidency.... In the Bombay presidency a not inconsiderable industry is carried on in some of the Deccan districts."¹ Nor has the woollen carpet industry suffered by any kind of foreign competition.

Export of Carpets and Rugs.

Year	Quantity in lbs.	Value in £.
1913-14	1,640,770	153,446
1918-19	944,132	98,466
1930-31	4,231,526	502,822
1931-32	4,766,797	425,438
1932-33	5,963,304	476,277
1933-34	8,452,443	545,006
1934-35	10,093,364	673,602
1935-36	9,347,108	604,848

(Handbook of Commercial Information, p. 289)

It is interesting to note that during the very years in which the cotton industry was vehemently complaining of Japanese competition and "a threatening cloud 'was hanging' over its future, India's export of carpets and rugs had reached peak figure.

Nor have the rest of the "special" industries of the country ever complained of foreign competition; while all the industries organised on the large-scale factory basis with products on the "competitive schedule" have invariably sought the shelter of selective protection to preserve their share of the home market.

¹Handbook of Commercial Information for India, pp.179-180.*

Are we to maintain these new "urban" industries under the shelter of protection? By 1938, the following industrial products had invoked and been granted the protection of preferential and protective tariffs: sugar, heavy chemicals, iron and steel, silver wire, thread and other manufactures, paper, silk yarn and thread, cotton yarn, thread and manufactures, silk fabrics, cotton hosiery, matches, match splints and veneers and wood pulp.

In any analysis of the merits of protection for Indian industries selective or general—we must not forget the fundamental fact that India is predominantly an agricultural country with only 4.4 per cent of the total population engaged in industry, mining and quarries and this naturally leads us to a position which is as true of India as it is of England, so long as India decides to stay on the basis of a competitive economy: "the dependence... upon overseas trade for prosperity is the governing fact of the situation. Any policy which neglects it can only lead to disaster."¹ India has to depend, as long as she decides to stay within the ambit of an exchange economy, upon international trade: her industrialisation is not yet adequate to release her from the system of international co-operation. Further, due to the presence of several economic deficiencies, the consuming masses are not economically powerful enough to bear the crushing burden of industrialisation under selective protection.

"Whatever the remoter objects," wrote a committee of experts in 1932, of Protective Tariffs, "all tariffs other than tariffs for revenue have one common feature. The taxation imposed by them is discriminatory, falling on some articles and not on others... It is intended on the one hand to discourage or prevent consumers from buying as they would like to buy, as they would buy if there were no tariff. It is intended on the other hand, to encourage producers to produce as they would not produce if there were no tariff... It is both a restriction of the liberty of consumers and a changing of the environment for producers... A tariff is nearly always intended to influence directly men's lives and livelihoods, to mould the economic structure in which each man must find his niche."²

¹Tariffs, the Case Examined, p.7.

²Tariffs, the Case Examined, pp.34-35.

Let us examine this statement with reference to the Indian sugar industry.

The sugar industry was granted protection in 1931 and the growth of the industry since that period is tabled below:—

Progress of Sugar Industry.

Year	No. of factories	Quantity of Sugar manufactured from cane—Tons.	Total quantity of sugar in tons.
1929-30	27	89,768	310,918
1930-31	29	119,589	351,650
1931-32	32	158,581	478,119
1932-33	57	290,177	645,283
1933-34	112	453,965	715,059
1934-35	130	578,115	757,218
1935-36	137	912,000	1,091,600
1936-37	150 (estimate)	975,000	1,150,600

The above table clearly testifies to the statement that a protective tariff "is intended to encourage producers to produce as they would not produce if there were no tariff." It is doubtful if the sugar industry would have grown to the same stature under a competitive market in sugar. This has only led to a gross misdirection of the country's productive resources as we shall examine later on.

Has this enormous expansion of the Indian sugar industry meant any advantage to the Indian consumers?

While the price of Java sugar per maund was Rs. 7-7-6 in April, 1914 and rose to Rs. 8-4-3 in January, 1913, in 1937, it oscillated from Rs. 6-8-0 to Rs. 7-9-3 per maund in the month of February 1938. While the wholesale price index for India with 1929 as the base was 68.1 for the month of March in 1938, the price of sugar had dropped from Rs. 9-2-6 in January, 1929 to only Rs. 7-9-3 in February, 1938. Is there any wonder then if the chain index of profits in the sugar industry with 1928 as the base stood in 1936 at the staggering figure of 244.0? The progress of the sugar industry, complained the Official Reviewer, had outstripped the economic optimum "under the present conditions"¹ though this phenomenal expansion of the indus-

¹Review of the Trade of India, 1937-38, p.49.

try did nothing to cheapen the price of sugar to the rural consumer. This has been the effect of "selective protection" on the structure of the sugar industry. If there has been any reduction at all in the price of sugar since 1936, the Official Chronicler puts it to *over-production*. "Over-production," he writes, "due to this rapid development has depressed the price of sugar in recent years and naturally brought down the level of profits."¹

Profits in the Sugar Industry.

Year	No. of companies.	Chain index of profits—Base 1928-100
1928	10	100
1929	10	19.6
1930	12	93.6
1931	12	144.5
1932	12	253.9
1933	12	254.2
1935	20	156.1
1936	21	244.0
1937	21	119.1

In fact the expansion of the sugar industry has been so phenomenal that we have the official warning: "The process, if unchecked is likely to lead to a serious crisis in the sugar industry and would not merely affect the fortune of the industry itself but that of many millions of sugar cane cultivators."²

Thus selective protection has precipitated a major crisis in the very industry it pretended to stabilise and *protect*. We were warned before! A protective tariff "is a changing of environment for producers." In a *protected* market, the temptation for the misdirection of the productive resources of the country is too strong to resist. There would have been no crisis in the Indian sugar industry, leading to over-production and price-cutting, if a free competitive market had been allowed to determine the stature of the industry. Nor would there have been the phenomenal profits which sky-rocketed the sugar shares thus precipitating a major crisis in the industry.

¹Review of the Trade of India 1937-38, p.49.

²Review of the Trade of India, Opt. Cit. p.52.

What is the remedy that the sugar industry has invoked to get over this crisis? The easiest way to straighten out a crisis in any specific market is to assume control of the mechanism of adjustment between production and consumption through monopolistic organisation. That is exactly what the sugar industry of India has done. Quite recently an All-India Sugar Syndicate has been formed with compulsory membership for all factories in the two provinces of Bihar and the United Provinces.

There is nothing new in this. This is the usual plan of all the protected industrial systems all over the world—the logical terminus of all protective processes; it has happened in the sugar industry of South Africa and it has happened in Australia. A protective tariff, we are told, “may stimulate a movement towards monopoly with a view to exploiting a helpless home market.”¹ In India itself the tendency is not confined to the sugar industry alone. The cement industry also has betrayed an unashamed tendency towards a monopolistic exploitation of the home market by forming a merger in 1936 familiarly known as the Associated Cement Companies (A.C.C.) Of the cement industry we learn on authority: “But the starting of new companies, some of which are projected on a large scale and are being powerfully backed, is likely to lead to more severe competition and even to over-production and price-cutting.”²

Have the other “protected” industries fared any better? The official testimony is hardly encouraging. Of the cotton industry it is said: “The present healthy conditions have been brought about by a recovery in demand and a weakening of foreign competition. The continuance of the latter factor largely depends on the duration of the Sino-Japanese conflict...and it is during this period that the Indian cotton industry must consolidate its position” through “rationalisation” and reduction of the cost of production to “the minimum”, and “careful and prudent management is essential if the future prospects of the industry are to remain favourable.”³ Of the Jute industry, we are told: “the position of the jute industry

¹Tariffs, the Case Examined, p.96.

²Review of the Trade of India, 1937-38, p.55.

³Review of the Trade of India, 1937-38, pp.35-36.

has been perplexing."¹ Of coal-mining we learn: "As regards the future prospects of the coal industry they appear to be rather obscure at present."² As regards the iron and steel industry which "for many years past...has been enjoying protection," we have this colourless verdict: "As regards the prospects of the iron and steel industry it is not necessary to take a gloomy view."³ The sugar industry has elicited the diagnosis: "Some check is being placed upon the uneconomic development of the industry. How far these attempts will succeed in stabilising the sugar industry on a healthy basis, only the future can show."⁴ Hardly an encouraging verdict after nearly a decade of selective protection! The progress of the paper industry is summed up as under: "The industry enjoys protection since 1932. With this help it has made good progress ...But the immediate prospects of the industry are not quite assured. In the first place, the cost of materials has been increasing and competition from newly started mills is also likely to be felt by the older established concerns."⁵

Years of protection have not given even a single industry either structural stability or competitive ability even in the home market. A desperate bid for the home market has only precipitated a monopolistic tendency in some protected industries like the sugar, paper and even in the iron and steel industries, to the detriment of 96 per cent of the total population of the sub-continent, whose income-structure is progressively contracting under a competitive market for primary products. For instance rice which commanded a price of Rs. 6-6-0 per maund in Calcutta in April, 1913 was fetching only Rs. 3-5-0 in the same market in April 1938; wheat which stood at Rs. 31-8-0 per candy in Karachi in April 1913, could fetch only Rs. 23-4-0 in the same market in April 1938; ground-nuts which commanded in the Madras markets in April 1913 Rs. 43-0-0 could only be sold in the same market at Rs. 23-5-0 (per candy of 500 lbs.) in April 1938. Similarly cow hides (Agrás) fetched Rs. 22-0-0 for 20 lbs. in April 1913, while they

¹Ibid, p.39.

²Ibid, p.45.

³Ibid, p.49.

⁴Ibid, p.52.

⁵Ibid, p.57.

could not be sold for more than Rs. 9-4-0 in the same market in April 1938. The situation is really grave particularly when the price-movements of Indian industrial products are studied against this background. Prices of iron and steel with 1928 as the base had risen to 130 by November, 1937; "prices of coal increased by even a greater percentage"; and sugar prices began rising after June 1937, though they did not touch the level of 1935-36 or, 1932-33. Only the price of cotton products showed a steadying tendency. Obviously the country is not in a position to bear the burden of selective protection which has been responsible for all this maladjustment.

In such a background, the old "infant industries" argument sounds highly exciting; but the question cannot be avoided; what has *selective protection* achieved for India? It has not only condemned the industries it pretended to protect to perpetual economic infancy like the paper industry of the country but also generated monopolistic combinations as in the sugar and cement industries for exploiting a "*helpless home market*". One can do no better than invoke Prof. Smart's observations on Canadian protection for infant industries at this juncture: "One of the fathers of Canadian protection—Sir Charles Tupper—declared long ago that 'given fifteen years of Protection the infant industries of Canada would be able to stand alone.' The fifteen years are gone; twenty-five years are gone. The infants are still in arms!"¹ To which Sir William Beveridge added a postscript in 1932: "Thus, Prof. Smart wrote in 1903. To-day fifty years are gone; in the fifty-third year the infants have to be rescued by an emergency tariff."² Selective protection is no guard against such economic infancy even in India.

Selective protection is only another name for *selective exploitation* in a country like India. "The use of protective tariffs," writes Prof. Robbins with great indignation, "as a 'cure' for trade depression is not new. The atmosphere of trade depression is favourable to the adoption of panic measures. The interests which, in times of prosperity, find it hard to enlist support for their conspiracies to rob the public of the advantages of cheapness and

¹Quoted in Tariffs, the Case Examined, p.103.

²Ibid, p.103.

division of labour, in times of bad trade, find a much more sympathetic hearing."¹ We have only to substitute "economic anarchy" for "trade depression" and the statement becomes at once alive to Indian conditions. It is in such an environment that Indian selective protection was born!

"National policy in the economic sphere, as in all the other spheres," we learn, "should be directed to ensure permanent advantages for the population as a whole."² Selective protection in India has neither given solidarity to the industry which had invoked its assistance nor has it secured "permanent advantages for the population as a whole."

We have seen how selective protection in India has undermined the economic stability of the industries which it pretended to protect by setting up an artificially controlled market whose only service to the economic system of the country has been to misdirect the productive resources of the country. It is true that protection has definitely changed the markets in favour of the industries protected; but it could not certainly change the *conjuncture* in favour of an all-round economic adjustment. Nor can the artificial structure of the home market set up by the protective tariffs endure for long the powerful penetration of the forces of competition as is amply illustrated by the evolution of the cotton industry. Nor can the protected industries avoid structural and functional maladjustments so long as competition among the various units of the protected industries themselves cannot be effectively regulated. Even monopoly in the Indian cement industry has not given the industry any effective control of the home market. The sugar industry has to face the problem of a severe price-war between the older and the more recent units of the industry.

Nor could we easily get rid of protection—selective or general—once we are caught in its clutches without precipitating a major crisis in the country; because, as we have been cautioned before, "a tariff is nearly always intended... to mould the economic structure"³ and it is extremely hazardous to disturb the artificial scheme of ad-

¹The Great Depression, p.65.

²Tariffs, the Case Examined, p.117.

³Tariffs, the Case Examined, p.65.

justments set up by a tariff in the market every now and then, nor could we succeed in doing so since protection invariably sets up a ring of vested interests which determinedly oppose any disturbance to their *status quo*. It is also clear that because of protection, "the industry will be profitable beyond its natural scope, and will come to be established on an excessive scale; that is to say, on a scale and in places where it cannot be maintained without Protection...At the end of the period, those who cannot carry on without Protection will fight for its continuance. They will argue, correctly, that a removal of Protection will cause unemployment; they will be joined in their plea by those who could get on without Protection, but can make larger profits or do larger business with Protection and at least cannot lose by it. Protection is not an instrument of precision which can be used to do just one desired good thing and no more. It is a blunt instrument which if it touches the spot aimed at at all, at the same time, makes a blur all around it."¹ The experience of our country under selective protection has hardly been otherwise; it has forced the productive resources of our country into "unnatural channels" by creating an artificial boom in the protected markets, and relatively depressing the unprotected industries. The phenomenal expansion of the sugar industry since it was granted protection has clearly shown the damage protection can do by diverting our slender productive resources into uneconomic channels and the damage it can do to the country at large by distorting the structure of rural production—especially with regard to the raw materials of the protected industries. "No economist, as far as I know," wrote Prof. Viner in 1931, "has ever maintained that the gain to any country from the favourable shift in the terms of trade due to Protection is every likely, under conceivable circumstances, to equal her loss from the uneconomic re-allocation of her productive resources."²

Has selective protection in India at least contributed to general interest?

With a population of nearly 360 millions, India had in

¹Tariffs, p.104.

²Nation and Atheneum of 7th February, 1931. Article on "The Tariff Question and the Economist".

1935 only 8,831^{*} factories employing 1,610,932 labourers of all classes including women and children. Even by the most fantastic stretch of imagination, it is indeed hard to recognise the welfare of these labourers as being co-extensive with general interest; but even the welfare of these labourers was not secured. In the decade, 1928-38, the Indian labour market remained highly inflammable. We are told on authority, "The number of working days lost were the highest on record in 1928, amounting to 31.6 million. The strikes in that year showed a growth of picketing and intimidation, sometimes resulting in violence and bloodshed...In the latest year (1937) labour unrest has increased greatly and the number of disputes and the workers affected is the highest for many years...Labour unrest has been growing...and with better times for many Indian industries the workers' demand for higher wages and especially for the restoration of the cuts introduced during the depression has become insistent."¹

The industries involved in labour disputes include not only the older industries like cotton and jute industries but also the iron and steel industry.

What has selective protection, then, done for India?

It has brought, in the initial stages, enormous profits to the favoured industries, thereby misdirecting the productive resources of the country; it has profoundly disturbed the structure of rural production by artificially inflating the prices of raw materials used in the protected industries. Thus while in 1924-25 the area under sugar-cane was 2,655,000 acres, in 1934-35 sugarcane had come to occupy 3,524,000 acres of the country's land resources. And by 1937, sugarcane had spread itself over 4,440,000 acres because of the enormous expansion of the Indian sugar industry. The subsequent crisis in the sugar industry was again reflected in the reduction of the area under sugarcane which was in 1937-38 only 3,815,000 acres. The incidence of such phenomenal fluctuations in the administration of the country's land resources on the stability and stature of Indian rural economy can hardly be exaggerated. In the sugar industry itself, we have a fair view of things to come should we persist in the protec-

^{*}Review of the Trade of India, 1937-38, p.58.

tive path of industrialisation. As the artificial boom created by selective protection in the sugar industry began to liquidate itself after 1936, the position of the sugar-cane growers of the country began to deteriorate. Thus we read: "The Governments of the United Provinces and Bihar...have therefore undertaken legislation to regulate the industry so that the welfare of the cane cultivators should be safeguarded."¹ Selective protection may have achieved one success and that is it might have secured temporary advantages to, what Prof. Giuseppe de Michelis calls, "the three plutocratic divinities, finance, banking and the Stock Exchange."² Because of selective protection and the transient "solidarity" of the protected industries, there was hectic speculation in the "protected stocks" on the stock exchanges of the country. Of the iron and steel shares we read: "As regards share values, there has been hectic speculation in steel shares in India and as a result prices were raised to unprecedented levels during 1937."³ The index number of steel shares with 1928-29 as the base rose to 268 in December 1936 and shot up to 581.3 by March 1937. Similarly, the index number for sugar shares with 1928-29 as the base, rose to 200.8 in July, 1936 and dropped to 99.9 by March 1938. So too the index number of shares of the paper industry with 1928-29 as the base, which had touched its lowest level of 78 in July 1931, before the industry got protection (1932) suddenly shot up to 265.4 by July 1936, and when the first flush of "prosperity" sagged, sank back to 196 in March 1938.

All this must point to certain irresistible conclusions.

As long as India's industrial evolution continues to suffer from both structural and functional deficiencies, we cannot have economic solidarity for our industrial structure, nor can the industrial structure of the country get rid of its structural and functional defects as long as it is organised on individualist competitive basis. It is obvious then that we cannot build a stable economic system for India on competitive lines. Failure to realise this fundamental fact has been responsible for no end of confused thinking. For instance after declaring that "the tariff protection at

¹Review of the Trade of India, 1937-38, p.52.

²World Reorganisation on Co-operative Lines, p.108.

³Review of the Trade of India, 1937-38, p.48.

present afforded in this country is inadequate...Higher tariffs and more substantial protection are essential to inspire confidence and induce people to risk money in industries,"¹ Sir M. Visvesvaraya goes on to contradict himself that "In spite of tariff protection, industries are liable to lose ground heavily on account of keen international competition and eventually may come to be shut down."² We are again told that, "The United States of America built up its industries by raising a high tariff wall against foreign goods,"³ but the subsequent difficulties of the American industries are matters of universal knowledge with any student of the economic history of the world in recent years. The giant industrial combinations which have almost unchallenged control of the economic structure of the United States of America and are definite impediments in the path of adequate adjustment between production and population were born out of the epoch of American Protection. "In the last quarter of a century," says Prof. Michelis, "notably in Germany and the United States, this process of consolidation could be observed in active operation, and it was accelerated in the years before the war and after the armistice" in combines utilising all the instruments of "economic coercion inherent in the state."⁴ "Out of a population of 124 millions in the United States of America," President Roosevelt wrote in 1933, "American economic life was dominated by some 600 odd corporations, who controlled two-thirds of American industries and 10 million small business men divided the other third."⁵ In India this tendency has already become manifest in the cement, sugar, paper and steel industries: protection in these industries has only set up syndicalist conspiracies to rob the public of the benefits of technical progress and economic efficiency. Do we want to widen this penumbra of economic servitude—which reduces the entire country into an economic colony to be exploited by a small ring of industrial capitalists?

¹Planned Economy for India, pp.53-54.

²Ibid, p.60.

³Ibid, p.70.

⁴World reorganisation on Corporative Lines, p.108.

⁵Quoted by Sir M. Visvesvaraya, in Planned Economy for India, p.159.

If protection has produced an economic muddle in every country in the world, there is nothing to prevent it from working havoc in a poor country like India where capital is severely concentrated in a few hands and where 70 per cent of the population are toiling not for profit, but for a mere subsistence. We have a clear picture of the havoc which protection and regulation in America have created in the country from Prof. Robbins: "But it so happens," he writes, "that in America in recent years there has been ready to hand an expedient which, while fostering no artificial restriction and giving rise to no false hopes for agricultural producers, would have unquestionably done much to ease the difficulties of the transition and to mitigate the pressure on the farmers—a lowering of the industrial tariff. The American farmer has been subject to two pressures—the reduction of his money-income due to the forces we have been discussing, and an increase of costs, a curtailment of markets and a reduction of real income due to the operation of the American Tariff.* This second pressure is in no wise dictated by the operation of the consumers' demand or the course of technical progress. It is the direct result of restrictions on division of labour imposed in the interests of manufacturing industry. Its net result, so far as agriculture is concerned, is to make the degree of contraction necessary to bring real income into equilibrium greater than would otherwise be the case. A lowering of the tariff would have the effect of extending agricultural markets, lowering agricultural costs, raising agricultural incomes and to that extent relieving the pressure to contraction."¹ This analysis needs to be carefully studied in its bearings on Indian conditions.

Protection is an instrument of economic adjustment only in a diseased economic society infected with vested interests and abject economic inefficiency. To assert that protection will distribute the fruits of technical progress with a liberal hand betrays profound ignorance of the history of protection among the Great Powers. Protection, subsidies, the quota system and "preference"—all such economic restrictions which obstruct the free play of the economic

*The Great Depression, pp.134-135.

forces of competitive adjustment—so long as a country or region has to liquidate its productive effort in an international market, betray the desperate attempts of a degenerate economic system to equate its senile cost-structure with a progressively vigorous world-market. Nor can any sane man view the “infant industries” argument of rank protectionists as anything but the hypocritical attempt of vested interests to contaminate a healthy national market.

If a country is anxious to remain within the orbit of an international economy and realises that it cannot adjust the cost-structure in any of its industries to price-movements in the international markets without the assistance of protective tariffs, it would be better for the country to divert its productive resources to more efficient branches of national industry and relieve the community of the agony of adjusting its scale of preferences to suit the *artificial conditions* of a protected market. That is the only sane and sensible way open for a country which cannot marshal the factors of technical progress to its own and the world's lasting advantage. That is what a Committee of experts told England eight years ago: “The policy which to-day still serves best the material interests of Britain is one that keeps her where the founders of her prosperity strove to place her—in the van of all movements towards international goodwill and co-operation, an eager partner in every effort to show by precept or practice the folly and the dangers of economic war between nations.”¹ and it proclaimed that such an adventure would be impossible for England unless she could “keep young in the changing world.”²

The problem for India is the same, “of keeping young in the changing world”. How can she achieve it? By imperial preference? By industrialisation? By increasing her agricultural production?

Under a competitive economic civilisation, imperial preference is only another name for “imperial protection”. It was a bogey started by Joseph Chamberlain in the closing year of the last century and is utterly useless unless there is a genuine spirit of imperial co-operation to support it;

¹Tariffs, the Case Examined, p.243.

²Ibid, p.243.

but is such a spirit abroad in the British Empire? "Here", wrote a responsible Committee in 1932, "the general difficulty has to be noted that, so long as the governing policy of the Dominions is one of Protection, they cannot guarantee that preferences, even where they are now real, will remain real in future."¹ Reciprocal arrangements, according to Mr. Havenga of South Africa, would be useless unless they can be made "for sufficiently lengthy periods to give confidence and ensure stability." Mr. Bennett of Canada was vehement at the Imperial Conference that no basis for imperial preference which excluded considerations of adequate protection to Canadian industries—existing and to be established in future—could be satisfactorily implemented. Mr. Scullin of Australia emphatically declared "Australia is firmly determined to encourage her secondary industries and to witness their development. We recognise, however, that there are some types of goods for which the size of our market does, not yet justify the establishment of manufacturing plants."²

In such an atmosphere of economic restrictionism and separatism, imperial preference would only lead to the economic exploitation of such imperial units as have been handicapped by a one-sided economic evolution like England and India by the more favourably situated parts of the Empire. Of wheat imports under a preferential system into England, it was declared: "the sacrifice asked for from British consumers in respect of wheat was almost ridiculously out of scale with the offers which the Dominions could make of markets for British manufactures."³ Similarly as long as the system of imperial preference is not dominated by a genuine desire to conserve the economic resources of the Empire, imperial preference would only mean for India sinister economic exploitation entirely out of proportions to the advantages which India can secure from the process.

The share of British Empire in India's foreign trade is as follows:

¹Tariffs, p.142.

²Quoted in Tariffs, the Case Examined, p.142.

³Tariffs, p.141.

Share of Empire in India's Foreign Trade.

British Empire	Imports.		Exports.	
	1935-36 per cent.	1937-38 per cent.	1935-36 per cent.	1937-38 per cent.
United Kingdom	31.7	29.9	29.9	33.3
Burma	17.5	14.9	6.0	5.7
Ceylon	0.9	1.0	2.9	2.9
Straits Settlements	2.0	2.2	1.0	1.4
Kenya & Zanzibar	2.3	2.6		
Union of South Africa	0.2	0.3	0.9	0.8
Australia	0.8	1.0	1.9	1.7
Canada	0.6	0.6	1.1	1.3
Total	56.0	52.5	43.7	47.1

This trade which mainly consists of export of raw materials produced under conditions we have examined earlier in the book and import of manufactures and machinery for consumption in the anomalous atmosphere of an unco-ordinated economic evolution cannot long be maintained to the lasting advantage of either of the participants.

"Twenty-five years ago, in the days of Mr. Joseph Chamberlain," we are told, "before the Dominions became so protectionist, there was far more scope for imperial preference than there is to-day. A hundred years ago a campaign for a Free Trade Empire might have succeeded. To-day it is hopelessly out of date...The analogy by which it is often supported, of the United States of America, as a great Free Trade area within a tariff wall, all but self sufficing, secure against the chops and changes of commercial policy in other lands is a false analogy...The states of America have all grown up together, under one tariff with no possibility of a tariff between them; the states of the Empire have grown up separately and as they grew up their economic ways have diverged more and more. To seek to drag them forcibly together may lead only to a break."¹ The danger of imperial preference to India can be hardly less severe especially in view of her anomalous economic evolution.

How can India then maintain even her present foreign

¹Tariffs, the Case Examined, pp.146-47.

trade? This is the question which must be solved before a greater crisis overtakes India.

"The country," says Sir M. Visvesvaraya, "can meet its heavy foreign obligations in future years only by a substantial increase of production both from industries and agriculture. Increased production in industries will reduce imports and the same in agriculture will increase exports; together they should maintain the essential favourable balance. How to arrange for the co-ordinated development of these two occupations and for a planned internal consumption and external marketing is the trade problem confronting the country at the present moment."

The central economic problem facing the country under a system of competitive adjustment with the international market in primary as well as secondary goods is, not the problem of how to increase the *volume of production* from agriculture and industries, but that of *reducing costs*, in other words, of increasing the *productivity* of every acre of land and of every process of secondary production. India is suffering, like England since the last war, from a cost-structure which is hopelessly out of tune with the price movements in the international markets. We have seen earlier in this book how India's foreign markets have been progressively reduced in groundnuts, wheat, linseed and cotton piecegoods because of the wide divergence between the Indian cost-structure and the price-structure in the international markets, and the consequent inability of the industrial and agricultural units to liquidate their products in a highly competitive world-market. That is why we find that some of the Indian industries are already facing the problem of over-production like the cotton industry, the sugar industry and the paper industry—to give three examples only. This over-production is the result of the inefficiency of the Indian cost-structure to keep itself equated with the price movements in the international as well as the home markets. Similarly the cotton industry is faced with severe foreign competition even in the home market because its productivity is low and it cannot clear its output in the market at competitive prices. Even if "a substantial increase of production both from

¹Planned Economy for India, pp.91-92.

industries and agriculture" were achieved, as suggested by Sir M. Visvesvaraya, it would make very little difference to our foreign trade so long as *the productivity* of every acre of land and every unit of production remains unchanged or, in other words, so long as we do not attempt to keep our cost-structure *competitive*. Nor can we inaugurate cost-reducing processes in our industrial structure as long as we intend maintaining an artificially inflated home market behind a high tariff wall, than which there can hardly be a more potent instrument to keep our cost-structure at an uncompetitive level.

The difficulties of increasing the productivity of the national machinery of primary and secondary production under competitive conditions have already been examined. It remains to explore the ways and means of reducing our industrial costs.

Industrial costs cannot be reduced by a mere wage-cut—a feat which has been attempted in the cotton industry with disastrous consequences; nor can we long maintain an *uneconomic* cost-structure by resorting to protectionist regulation of the home market. Such a process would set up artificial conditions which would only distort our industrial structure by misdirecting our productive resources as we have seen in the case of the sugar industry. Protection is the most costly instrument of economic adjustment in a community consisting of seventy per cent of rural consumers whose real income is progressively contracting under the double process of a severely *competitive* market for agricultural products and a *protected* market for secondary products.

If India's industrial productivity is to reach a competitive level in the international markets, the entire industrial structure of the country will have to be recast. India's industrial productivity is handicapped by not only an *uneconomic* wage-level, but also by *uneconomic* localisation, *uneconomic* management, *uneconomic* competition among the units of each industry, *uneconomic* marketing of industrial products and *uneconomic* technical processes of production.

Our industrial system is presenting to-day all the mor-

bid symptoms of economic anarchy born of a regime of unco-ordinated individualist capitalism. Our industrialists have committed the basic error of, what Prof. Michaelis calls, "economic quietism"; i.e., "not to look beyond the horizon of the factory and the bounds of the mere technical process of manufacture". They have failed to realise that "the profound transformation of the productive system, however, affects not only the mechanical part and the strictly technical part...but also its organisation and more generally its social aspect."¹ Consequently in India as all over the world, "the means of production are connected with the system of private property and the individualistic principle of reward, to the exclusion of the corrective social factor represented by the general mass of consumers."² Naturally our industrial structure is caught in the inevitable nemesis of its own evolution.

Can we rescue it from inexorable disaster by greater and more varied industrialisation as Sir M. Visvesvaraya suggests?

If we attempted further industrialisation without stabilising our existing industrial structure, we would only be plunging the country into the vortex of another technical revolution far more deadly in its effects than the technical evolution of the nineteenth century which has created the economic muddle of to-day.

Any scheme of industrial reconstruction of the country which does not attempt the co-ordination of the existing industries in a system of nation-wide conservation of productive resources, can only end in economic disaster. Nor can the existing industries of the country be co-ordinated under a system of competitive adjustments based on individualist production and international marketing. Industrial solidarity of the country is unattainable as long as each unit in each industry continues to maintain a spirit of *economic separatism* and refuses to yield to any scheme of national control through the regulation of its technical structure or the limitation of its output. Even such a mild measure of regulation as standardisation of wages in a single industry—the cotton industry—could not be carried

¹World Reorganisation on Corporative Lines, pp.22-23.

²Ibid, p.25.

on without generating heart-burn and controversy out of all proportion to its importance. The industrialists of India would sooner allow their industrial units to be crippled by the ravenous forces of unbridled competition in an open market than submit to any scheme of social control and co-ordination of their units in the interests of the stability of the national economic structure. Such is the special curse of "economic quietism" and the specific economic problems of modern India have definitely proved that such economic quietism is the stumbling block in the path of economic solidarity and stability.

In such a background, the economic reformer in India has to find his path with profound caution. To start new industries like automobile industry or aeroplane industry or heavy chemical industry as long as the economic position of the established industries is not stabilised is a venture beset with profound consequences and dire responsibility. No one can say boldly that we have even touched the fringe of the economic problems of the new urban areas created by the Indian transport system in the nineteenth century nor have we been able to liquidate the rigidities in our industrial structure which have been created by uneconomic localisation of our industrial units in the new urban areas. We have not yet solved the problems of technical urbanisation and urban "unemployment created by an educational system which has not been adjusted to the economic needs of the country in any well-thought of plan of higher conservation; we have not even thought of stabilising the urban labour market, which has remained purely seasonal for over two generations and which is bound to remain so as long as wages continue to be determined by considerations of liquidating industrial products in a competitive market. Nor have we conserved the land resources of the country and nearly seventy per cent of the population of the country live under conditions compared to which slum-life in the cities of London and Lancashire is paradise itself. Nor have we co-ordinated our *essential* industries like the textile industry, the steel industry, the coal industry and the sugar industry and we have to rescue them from a competitive market from time to time by protective tariffs. Nor have we been able to restore confidence to the agriculturist in

his productive operations by stabilising the prices of the primary products. We have simply let the country drift along the torrents of economic quietism. We have created for the country an economic muddle which nothing but a complete overhaul of the system of economic adjustments existing at present, can unscramble.

Do we want to get out of the present economic crisis created by a century of technical evolution of the country? Or do we want to inaugurate another technical transition in the country by diversification of industries under selective protection? These are the questions that India is called upon to face boldly and squarely. Her ability to face these questions in a frank and fearless manner and her efficiency in bringing the unco-ordinated units of an anomalous *technical* evolution under a corporate scheme of economic adjustments will determine India's claims to a respectable place in a reconstructed economic hegemony of the world.

How can India achieve the *summum bonum* of her economic evolution? What are the main features of the economic system which alone can secure economic stability for the country?

The answer to these questions take us to the final chapter of the present book.

CHAPTER VII

ECONOMIC CO-ORDINATION

CAPITALISM is in its dotage. "The abolition of distance and the overwhelming development of power in the world during the past century," writes H. G. Wells, "have rendered unco-ordinated political and economic control more and more monstrosly wasteful and destructive. They have to be brought together under a collective direction, a political and economic world order, or our race will blunder to complete disaster. The whole drift of things is towards political and economic collectivism, or disaster."¹

Why has capitalism failed? The basic merit of capitalism is its automatic adjustment through the price-mechanism. It cannot sustain itself in an atmosphere where economic adjustment is hampered at every stage by the artificial rigidities of a regime of planning and restrictionism; it cannot function in a world sterilised into "national economic zones" against the free play of forces of individualist production and competitive exchange. "The crisis in the capitalist system of economics," asks Emil Lederer, "can be solved by capitalistic methods... But how can the laws of Supply and Demand be put into practice in an economic system in which the most powerful group of private producers have come together in order to prevent these laws of the market from operating?"² Capitalism can only flourish in an atmosphere of international economic co-operation and co-ordination; but conditions in the world are not propitious for the propagation of capitalist economy. "If recovery takes place in the outside world," wrote Dr. Gregory in the Macmillan Committee Report, "without any definite steps towards international co-operation having been achieved, it is certain that they will then become impossible for a long time to come."³

¹The Rights of Man, pp.57-58, Penguin series.

²Quoted by D. G. Hutton in Nations and the Economic Crisis, pp.142-43.

³Addendum to the Macmillan Committee Report, p.218.

Capitalism has obviously created its own crisis: it erected an economic system on the basic tenets of free competition and efficient production with profit as the reward, but succeeded in undermining its own foundations by generating an "expanding tendency to industrial combination, the growing rigidity of all national structures, and the international struggle for sources and markets."¹

The basic fact is, as Prof. Michelis puts it, "the capitalist system contains in itself the germs of its own destruction. What was the automatic regulator which, in the ascending phase of capitalist development, sufficed to keep the various forces in equilibrium, to ensure sufficient co-ordination within the boundaries of nations and promote the so-called interdependence of the various markets for products and for capital? That regulator was the price of commodities which was determined by supply and demand. But concentration on an ever vaster scale and the unifying tendencies of markets rendered this regulative device of price ineffective, although it had been the only safe guide of economic activity and the only means of liquidating commercial crises."²

What then of the future?

Let Prof. Robbins answer the question: "The economic instability of the modern world does not seem likely to diminish. The tendencies making for instability...have not been weakened during the depression. On the contrary they have been strengthened...so far from there being any recognition of the instability and confusion which has been caused by the policy of interventionism, the majority of the leaders...seem to have drawn from the events of the last few years the conclusion that more intervention is necessary. All over the world, Governments to-day are actively engaged, on a scale unprecedented in history, in restricting trade and enterprise and undermining the basis of capitalism..." and goes on to add: "It is often said that these developments are inevitable. The changes in policy which would be necessary to avert them are impossible, it is said, because men will not stand them..."

¹D. G. Hutton, *Nations and the Economic Crisis*, pp.7-8.

²Prof. Michelis, *World Organisation on Corporative Lines*, p.35.

Protest is unavailing. We can only go with the stream."¹ All reasonable men will agree with Prof. Robbins that "such an attitude is surely unreasonable," but it must at once be recognised that it is the "unreasonable" evolution of capitalism in the past century that has created this attitude among responsible men.

If "for the hundred years which preceded the outbreak of the Great war, the economic system had not at any time shown itself to be in serious danger of grave breakdown", it is because during that period the competitive economic structure was gradually evolving itself to its final catastrophe—which was only accelerated by the Great War: furthermore, "It was a period of unprecedented change. The external conditions of economic activity were in process of continual alteration. In the old world the advent of steam and machinery was changing the nature and structure of manufacturing industry. In the new, the coming of new modes of transport was opening up vast areas, hitherto undeveloped, both as sources of food supply and raw materials, and as markets for the products of the manufacturing processes."² If in this period of evolution, "the economic mechanism was adjusted to this complex of change without anything like the present dislocations",³ it was not because of its internal stability, but because of the world "conjunctur" of the 19th and the early years of the present centuries.

The post-war period only emphasised the basic instabilities of an economic system based on individualist production and competitive exchange, especially when the post-war economic adjustment came to be dominated by the forces making for the "disruption of the world market." In fact, this disruption of the world market was the consequence of what Sigfried called, international "decentralisation de l'industrie" under "neo-protectionnisme" which set up a new conjunctur in which the capitalistic system based on competent production and competitive exchange stood in danger of disintegration.⁴

¹Prof. Robbins, *The Great Depression*, pp.197-199.

²Prof. Robbins, *The Great Depression*, pp.1-2.

³Prof. Robbins, *The Great Depression*, p.2.

⁴See Andre Sigfried, *La Crise Britannique Au XXe Siecle*, Chapitre Premier: Porte et causes de la Crise, Sec. 3 pp.32-34.

The economic reconstruction of India has to be attempted in such a background.

What are the special problems of economic reconstruction in India?

"The countries of Europe and America", says Sir M. Visvesvaraya, "are experiencing a temporary loss of efficiency through trade depression and monetary disorders, but India, under her non-modern economic order, is in a state of decay or partial paralysis, and if any redress is to come to her, her entire economic and political structure requires to be remodelled."¹ While agreeing with the last sentence of the paragraph so far as it concerns the "economic" aspect of reconstruction, it is not easy to square the fundamental facts of world economic evolution in recent years with the statement that the capitalistic countries are experiencing only a "temporary loss of efficiency" caught in the full fury of the Great Depression—while careful analysis of the *great dislocation* clearly points to both structural and functional defects in the working of capitalistic system in recent years. While other countries are suffering from unco-ordinated evolution of the economic system, our country is broken under the stress of an "economic evolution" which was *more technical than economic*. We must attempt to rescue our country from the inevitable consequences of such a transition.

The impact of such an evolution on the solidarity and stability of the Indian economic system has been terrific: both rural and urban economy have generated perplexing problems. In rural economy, Sir M. Visvesvaraya enumerates the following problems. "They are," he writes, "the excessive pressure of the population on land, the small size of holdings and their progressive fragmentation, the primitive methods of cultivation followed, the waste of farm manure, irregular hours of labour, insufficient and uneconomic utilisation of women's services, the lack of finance for farm work, the old-fashioned character of the subsidiary occupations pursued, the crushing indebtedness of the ryot, short employment, universal illiteracy and phenomenal poverty."²

¹Planned Economy for India, p.4.

²Planned Economy for India, p.35.

Our own analysis in the foregoing pages of this book has revealed certain fundamental problems of rural economy: the highly vulnerable cost-price margin in the agrarian markets as a result of the linking of the home market with the instabilities of world market for primary products; the anomalous adjustment between production of the subsistence type with competitive exchange in an internationalised agrarian market; the crisis in the "money-crop" market owing to the rigidity of the Indian rural cost-structure; the breakdown of the rural corporate economic system and the imposition of an exchange system which has seriously undermined the confidence of the agriculturist in his mechanism of production by injecting all the inexorable instabilities of a competitive circle of exchange into the rural system of economic adjustments—a complex which has driven the Indian cultivator to administer his resources in a highly complicated and competitive economic structure and, creating in the process of adjustment, a huge volume of indebtedness born of the "uneconomic" equation between *incompetent production and competitive exchange*.

These problems cannot be dissolved by a mere *technical* reconstruction of the mechanism of rural production, nor can they be liquidated by widespread literacy and liberal education. Neither reconstruction of agricultural technique nor the liquidation of rural indebtedness, nor the supply of cheap credit to the rural producers, nor scientific education in the latest methods of cultivation, nor consolidation of the subdivided and fragmented holdings, nor regulation of agrarian labour, can ever rescue Indian agriculture from the bottom of the economic abyss in which it is sunk to-day.

In planning rural reconstruction, we must remember certain fundamental facts. We must first rescue our rural markets from the instabilities of the international market for primary products. In the second place, we must replace competition by co-ordination, and finally we must work out a comprehensive plan which will set up a proper adjustment between rural and urban economic functions.

We cannot reconstruct our economic system along these lines as long as India is determined to stay within the ambit of a competitive economy. It is equally certain that

no substantial reconstruction either in Indian agriculture or industries can take place as long as the Indian markets are handicapped by the presence of all the instabilities of an internationalised system of economic adjustments. Her success in a system of competitive adjustments implies the recasting of the Indian rural cost-structure to suit the price-movements of the primary markets of the world. Nor can such reconstruction of the rural cost-structure be attempted without the emergence in the country of gigantic farms and scientific agriculture as in America, Argentina, Australia, Canada and African States. The rise of gigantic farms and mechanised agriculture will generate in an old country like India a gigantic rural exodus creating the colossal problem of *urbanising* nearly sixty eight per cent of the three hundred and odd million population of the land. No scheme of diversification of industries can be powerful enough to liquidate such a vast movement of rural population especially when the "compensatory" industries themselves have to seek their balance in a competitive and internationalised secondary markets. The problem of keeping the cost-structure in industries competitive and, at the same time, maintaining the solidarity and stability of the labour market through an "adequate" wage-structure cannot certainly be solved within the framework of a competitive system of economic adjustments.

In such a background Sir M. Visvesvaraya's observations sound amusing: "By neglecting industrial pursuits to the alarming extent revealed by the statistical information ...the Government and people of this country have been following a policy prejudicial to its national welfare... The Indian problem is fundamentally industrial and should be solved by the same methods as have proved efficacious in countries like the United States of America, Japan and Canada and latterly also with such startling success in Soviet Russia."¹ Such a statement can only generate more profound and widespread confusion regarding the fundamental problems of economic adjustment in India.

The conjuncture in which the industrial and commercial revolution of the 19th century originated and sustained it-

¹Planned Economy for India, p.234.

self in America, Canada and "latterly" in Russia is entirely different from the atmosphere in which it has to seek its fulfilment in India. In the 19th century, India was the last country to evolve a competitive system; every phase of economic adjustment was vitiated by the presence of enormous rigidities. An uneconomic transport system, as we have noted above, created an uneconomic localisation of industries; an uneconomic localisation of industries begat an uneconomic cost-structure, which suppressed the wage-structure to a level at which stabilisation of the urban labour market was well nigh impossible. Besides failing to liquidate occupational maladjustment, the urban wage-structure also failed to correspond to price movements in the secondary markets of the world. Nor could it enable the indigenous industries to hold the home market against foreign competition; it only succeeded in precipitating such a crisis in the industrial structure of the country that industries had to be rescued by "discriminating protection"—which has not only created a major crisis in the so-called "protected industries", but also brought about a gross misdirection of the productive resources of the country—as is amply evidenced by the phenomenal structural and functional difficulties of specific industries like sugar, paper, cotton and iron industries. It has only served to demonstrate what damage an *artificial management* of a market through protection can do, not only to the consumers through artificially inflated prices for the *protected products*, but also to a proper administration of the productive resources of the country by distorting the investment market in the protected industries. Consequently our industries are suffering from uneconomic localisation as in new urban areas like Bombay, Calcutta, Madras, Cawnpore, etc., uneconomic competition among the units of each industry; uneconomic cost-structure born of a protective complex and complicated by structural and functional deficiencies and the difficulties of reaching the markets through an uneconomic transport system.

Every one will agree with Sir M. Visvesvaraya that "India cannot prosper except through rapid industrialisation, and rapid industrialisation is not possible with the sort of organisation and policies pursued in this country. Industrialisation has to be organised, planned and worked

for. Left to the chances of unregulated growth under the existing natural limitations, it is impossible to expect any progress. Not only can there be no progress, but there is a very real danger of a further set-back, a further drift towards ruralization, with consequences too dreadful to contemplate."¹ But few would agree with him when he asserts that rapid industrialisation should be attempted under a protective tariff. "Most countries reserve their home market to themselves by levying heavy, and sometimes, prohibitive duties and freight rates against imports. There is a move to lower tariffs by international understanding but, till that consummation comes about, the most important help which industries in India require is tariff protection, that is, a preferential claim to dispose of the products of local industries in the home market, with the two-fold object... of saving the money that would go out of the country, were products of foreign manufacture purchased, and of giving employment to local labour. **Protection is needed primarily to enable new and infant industries to compete successfully with long established foreign rivals.**"² We have already discussed the *economics* of selective protection at length and the observations of the Author under reference in regard to protection for Indian industries during the period of their competitive infancy need not detain us. Nor is there any need to overemphasise the dangers of industrial protection in a country where more than seventy per cent of the population are rural producers and consumers of industrial products. We have also seen how protection to industries will only act as a *discrimination* against the rural population who are already impoverished by an *economic* evolution which has seriously damaged their power of resistance to syndicalist exploitation. Nor have industries fared any better under a competitive system of production and exchange because of the basic fact that the cost-structure of Indian industries is hopelessly out of tune with the price-movements in the international market for industrial products. Any attempt then to equalise costs in our industries through the manipulation of the home market under a protective mechanism, or by the more expedient and *popular method* of wage-

¹Planned Economy for India, p.235.

²Planned Economy for India, p.53.

reduction can hardly stabilise our cost-structure. What must be done to stabilise our cost-structure is to rectify the structural and functional deficiencies of our industrial system which are responsible for the present divergence between the Indian cost-structure and price fluctuations in the international markets for primary and secondary products. Protection as an instrument of economic adjustment, either under competitive economy or under a planned economy, is unavailing as it is impotent to stabilise the industrial system. Protecting our existing industries will only precipitate a fiercer maladministration of our productive resources under the artificial stimulus of a *protected market*; protection to new industries *will not* give us an industrial system which will so reconstruct the wage-structure that a general rural exodus will result—as long as we maintain the framework of competitive economic adjustment in tact. Such protection would only create panic in the investment market by inaugurating an epoch of inflated industrial profits and reckless speculation in industrial stocks as in the iron and sugar stocks in recent years which we have examined above and drive our slender capital resources into *unnatural* channels of investment.

Nor is it a wise policy of sound industrial finance to build up an *artificial* industrial system with borrowed capital. Says Sir M. Visvesvaraya: "A large amount of capital will be required for starting and working new industries, new railways, public works, public utilities, shipping and other enterprises...It is estimated that a loan of at least Rs. 500 crores will be required...The capital issues required for this purpose might be obtained partly from **profits of existing industries and partly by raising loans** to the extent necessary either from the local public or from foreign countries."¹ The implications and complications of such proposals on the maintenance of an adequate "cost-structure" are indeed immense. Nor is such industrialisation practical unless the "plan" involves complete "nationalisation" of the instruments of production and exchange; it must also include nationalisation of the existing industrial structure and severe regulation of the entire mechanism of economic adjustment. Here Sir M. Visvesvaraya fights shy of the position created by himself. He says: "The

¹Planned Economy for India, p.198-99.

Indian plan should avoid *communistic tendencies*: its basic policy should be to encourage collective effort **without interfering with individual initiative**. The developments should be more on the lines followed in the United States of America and Turkey.¹ It is indeed hard to reconcile such a plan with any code of economic stability and technical progress, especially when we appreciate the price which America is paying for lack of co-ordination in the evolution of her capitalism since the War and study the far-flung implications of President Roosevelt's New Deal.

America affords us a glaring example of capitalistic evolution under the aegis of, what Prof. Michelis is pleased to call, the "three plutocratic divinities, finance, banking and the Stock Exchange"² Protective tariffs and the recognition of individual initiative have given America her giant monopolies, which have seriously damaged the interests of the consuming public. President Roosevelt has been concerned since his election in the thirties to rescue the economic system of America from this sinister domination. What has been the result of his scheme?

Of Agricultural Adjustment Acts and of the effects of the New Deal on American Agriculture, Prof. Robbins tells us: "The industrial workers will pay more for their food...and the farmers continue to pay high prices for industrial products and suffer the curtailment of markets which is the consequence of industrial protection. At the same time the subsidy which they receive for the curtailment of acreage is a definite incentive for marginal producers to stay where they are. Presumably when agricultural development of the Tennessee Valley has been provided for, there will be more subsidies to keep part of it out of cultivation,"³ because the New Deal attempts to stabilize agricultural prices at the level of the base period, "the pre-war period, August 1909, to July 1914." And in industries, the policy of restriction such as that envisaged in the American New Deal is "nothing but the maintenance of the value of invested capital." "The effect of restrictionism, as we have just seen it," writes Prof. Robbins, "is to

¹Planned Economy for India, p.7.

²See Prof. Michelis, World Reorganisation on Corporative Lines, p.108.

³The Great Depression, p.136.

maintain (or to enhance) the value of capital already invested in the industry in which production is restricted. But it does this by lowering the prospective return on capital which is invested elsewhere...the productivity of new investment is lower...The proliferation of restrictive schemes may preserve existing capital values, but it is detrimental to the revival of investment."¹ And then Prof. Robbins goes on to say: "President Roosevelt may think that by suspending the Sherman Act, and by giving each industry the right to restrict competition, he is creating the framework of an ordered society. But he is likely to receive a rude shock. **A planned economy must be planned from the centre.** This is the only intelligible meaning which can be attached to the concept."² And "planning from the centre" is only another name for the nationalisation of the mechanism of economic adjustment.

Of the American experiment at reconstruction, another author, Prof. Michelis, is equally vehement: "In substance the protective activity carried out by the American Government through the medium of the Federal Farm Board does not differ from the control which other Governments have exercised or exercise over the production and the marketing of coffee, sugar and rubber. In this case the methods of 'valorisation' and of 'permanent defence' have been combined with the accumulation and withdrawal of stocks, with credit operations, and with publicity campaigns, for the support of prices in favour of the producers. The failure of this policy, which has caused immense losses to Federal finances, is also well known nor does the technique of the systems put in operation afford us any element of importance."³ The new Presidential Administration has seen in the failure of its policy, "the condemnation of a state intervention not sufficiently extensive and co-ordinated in agriculture, in industry, in commerce and in banking."⁴ What is all this but an exhibition of *communist tendencies* which Sir M. Visvesvaraya wants us to avoid in a plan for India? In the same breath Sir M. Visvesvaraya warns us to guard against the emergence of

¹The Great Depression, pp.143-44.

²Ibid, p.141.

³World Reorganisation on Corporative Lines, p.119.

⁴Ibid, pp.119-120.

combinations: "Semi-monopolies of this sort (German, French, Belgian and British are some of the menaces to industries in undeveloped countries like India against which both the State and the people have to be constantly on the watch."¹ It is indeed a strange plan which while advocating the abandonment of communistic tendencies and stressing the importance of recognising individual initiative in the process of industrial evolution under a protective tariff, warns the community to check the growth of semi-monopolies!

What is the object of planning in India? Is it the attainment of economic stability for the country? Is it stabilisation of the existing industrial structure alone? Is it reconstruction of the machinery of agriculture to suit the exigencies of competitive agrarian markets? Or is it the interest of the consuming public?

"Sufficient diversity of occupations is lacking," writes Sir M. Visvesvaraya, the Author of an Economic Plan for India, "modern machinery and scientific methods have not been introduced into the country on any appreciable scale to help in increasing production. If there were a balanced structure of occupations, less than half the population now employed in it would be sufficient for agriculture. *In the natural course* the rest of that population should be provided with work in industries and other occupations. It wants large scale operations and the adoption of a multi-productional programme to do this. Appropriate changes should be effected to safeguard the country's future interests in this respect."² All this **balanced structure of occupations**, with a **multi-productional programme** and **diversity of occupations** are to be achieved within the framework of a plan which has to avoid "communistic tendencies", implement "individual initiative" and, at the same time, guard against exploitation of the country's secondary markets by "semi-monopolies!"

In order to work this Plan without "planning", Sir M. Visvesvaraya gives us the outline of an administrative machinery the details of which need not detain us. It is clear that Sir M. Visvesvaraya's plan has an industrial

¹Planned Economy for India, p.68.

²Planned Economy for India, p.25.

bias and relies too much on the innate excellence of individual initiative for its success, rather than on a deliberate control of the mechanism of economic adjustments by a Central Authority.

"The Ten-Year Plan is intended to remove, in the shortest possible time," writes Sir M. Visvesvaraya, "the more glaring disabilities and deficiencies inherited from the past and to introduce reforms and developments considered indispensable for a rapid advance."¹ What are "the reforms and developments considered indispensable for a rapid advance" in the country? Sir M. Visvesvaraya enumerates them: mass education, training for defence, industrialisation with special attention to heavy industries, survey of resources and collection of statistics, balancing of occupations and arresting the tendency to ruralisation, Indian control of the financial machinery, Indian control of the transport system, Indian control of the fiscal system, administrative and technical training for Indians, and goes on to declaim: "From what has been said before, intensive industrial development is bound to prove the most efficacious cure for the present-day ills of India's enormous population."²

Evidently Sir M. Visvesvaraya considers the Indian economic problem to be fundamentally an industrial problem; that our agriculture would improve, our commerce would flourish and our economic position would be stabilised if India had more industries than she has to-day. We would be unfair to Sir M. Visvesvaraya if we did not appreciate his vision of a Planned India: "Two or three new heavy basic industries, owned by large public companies or firms or by the local governments themselves, will have been established in every province. Many medium-scale industries and a great variety of minor and cottage industries will have sprung up. Agriculture will have come to be more profitably practised on scientific lines. New methods of intensive cultivation and cottage industries will have been developed to supply most of the staple wants of the population. Many new reservoirs, large canals and numerous minor tanks will have been built and

¹Ibid, p.243.

²Opt. Cit. p.246.

model farms established amidst 'expanses of smiling fields. The rivers will be protected and will be carrying clean water. Transport and travel facilities will have been greatly extended. Thousands of miles of new roads will have been laid out and old ones improved, particularly in rural areas. The railways and air services will have been greatly extended, and the engines, machinery and plant required for them supplied from factories successfully operating within the country. Docks and harbours will have been extended and substantial progress made in carrying Indian trade in Indian bottoms. Many new hydro-electric plants will have been installed and the country covered with a net-work of wires carrying electric power all over the land for lighting, industries and lift irrigation."¹ A brilliant technician's dream, but not that of an economist! The economist will keep on asking prosaically: "Very well, what next?" What is the object of all this vast structure of technical progress? Why is there not a word of how the increased volume of production under the new processes of reconstruction to be liquidated in the circle of exchange? What is to happen to the existing industries which have been passing through an economic and technical crisis of unprecedented intensity all these years, in the new economic dispensation? Are they to be let down in the grand drive for diversified industries? What about the money market? Is it to be left to the free play of the forces of speculative adjustment in the investment processes of the new regime? Or will there be rigid control of the money market by any central authority? How is the line of demarcation between public control and individual initiative in the working of the mechanism of economic adjustment to be determined? What is to happen to the fugitive population from rural zones under the new dispensation? Are the agrarian markets going to remain "competitive" or will they be "controlled"? What steps will be taken to safeguard the home market from syndicalist exploitation? These are questions which no economic reconstructionist may dare to ignore. Sir M. Visvesvaraya's plan leaves us in no doubt that another *technical revolution* is imminent in a country which has not yet recovered from

¹Planned Economy for India, p.257.

the ravages of an unco-ordinated technical transition of the past century!

Obviously Sir M. Visvesvaraya's plan is open to the criticism of a "partial plan" which combines all the basic instabilities of unregulated competition and unbridled restrictionism at once. "If planning," asks Prof. Robbins, "is not a polite name for giving sectional advantages to particular industries, what does it denote but socialism—central control of the means of production?...For 'planning' involves central control...Nothing but intellectual confusion can result from a failure to realise that Planning and Socialism are fundamentally the same...It should be clear then that the problem of planning is not to be solved by giving each industry the power of self-government (i.e. restriction of entry and production). This is not planning; it is syndicalism."¹ Sir M. Visvesvaraya's plan can only set up a syndicalist exploitation of India by Indian capitalists. This is the inevitable conclusion one is driven to draw from his attempt to exclude "communistic tendencies" and to plead for recognition of individual initiative in his plan. For as Prof. Robbins puts it, either "a plan is the centralised disposal of factors of production"² or it is economic anarchy.

Do we want such a "centralised disposal of factors of production" in India? Or can India secure economic solidarity in a regime of efficient production and competitive exchange?

It is evident that no plan which refuses to recognise "centralised disposal of factors of production" can succeed in rescuing our economic system from the instabilities of a regime of free competition. We have also seen how India cannot attain anything like economic stability under a competitive system of economic adjustments for two reasons: firstly, because the world is too full of restrictionist tendencies to admit of free functioning of the forces of competitive adjustment and secondly, because, free competition would imply a complete overhaul of the technical and social civilisation of the three hundred and sixty million people of this country, involving a drastic

¹The Great Depression, pp.145 to 147.

²Opt. Cit. p.153.

reconstruction of the machinery of rural and urban production to prepare it for international economic adventure. Such a reconstruction could only generate in the country enormous social and cultural friction which the country cannot afford in its present economic condition. An all-round reconstruction of the competitive type even if achieved, would still leave the economic system of the country at the mercy of international instabilities, necessitating incessant shifts and changes in the structure of production to suit price-movements in a world competitive market.

The economic problems of India are specific and are to be carefully studied. A century of unco-ordinated technical evolution has given India the preplexing economic problem of liquidating its rigid rural and urban cost-structures in a highly sensitive and competitive market. What Sir M. Visvesvaraya has attempted in his plan is to give Indian industries a partial control of the home markets in a system of industrial protection and set up a regime of syndicalist exploitation of the home market, while maintaining all the instabilities of an "open economic system," through exports. There is no attempt at controlling price-movements in the home market, which he leaves to the forces of competition within a *protected market*. A partially *managed* market in an acknowledged regime of individual initiative, as in America and Turkey, can only end by creating a worse crisis than that which it pretended to liquidate.

Nor can the process of reconstructing our structure of rural and urban production so as to maintain a *flexible cost-structure* in a competitive market be achieved without enormous cultural and economic friction. In agriculture, it would mean not only the injection of scientific and intensive cultivation, but also the emergence of large-scale farming with giant farms and gigantic rural exodus. Without a comprehensive reconstruction of our machinery of agricultural production, involving the double process of large-scale farming and intensive cultivation, we cannot give to our agriculture a *competitive cost-structure*, and elementary knowledge of the fundamental principles of economics teaches us that we cannot keep up our volume of exports without a competitive cost-structure. Nor is it

possible to solve the problems of rural depopulation by the direct and simple remedy of diversification of the industrial structure. If we are to invoke the fundamental Law of Choice to bring about occupational adjustment between rural and urban zones, efficient rural exodus can only be guaranteed by a **drastic and comprehensive management of the wage-structure**—by raising wages to a point at which there may be *efficient* rural exodus. This would certainly drive the wage-structure of the country completely out of relation with competitive conditions and can only be achieved by seriously damaging the efficiency of the Indian industrial cost-structure in the international competitive markets, which would directly affect the volume of our foreign trade; such an endeavour, causing divergence between the Indian cost-structure and price-movements in the primary and secondary markets of the world would only precipitate another major crisis in the country born of unliquidated “stocks”. It is an elementary economic fallacy to imagine that our rural problems can be solved by mere technical adjustments or diversification of industries as long as the wage-structure has to be kept *competitive*. That is how we come across in India of the complicated problem of the seasonal labour market. As long as the Indian wage-structure has to remain competitive, we cannot have a regular labour market nor can there be an efficient rural exodus to relieve the pressure of the population on the land resources of the country. And the vicious circle proceeds to emphasise that as long as the country cannot have an efficient rural exodus, the machinery of rural production cannot be reconstructed. Even if all the major, minor and medium scale industries are started in India, as Sir M. Visvesvaraya suggests, there can be no rural depopulation of a size sufficient to solve the major problems of rural economy in India, unless the urban wage-structure is high and attractive enough to adequately affect the scale of occupational preferences of the rural population. Such a wage-structure would, of course, be incompatible with the conditions of adjustment in an international market.

Can we then maintain a high wage-structure in industries to restore occupational balance between rural and urban areas under protection?

Our foregoing analysis has amply proved* that protection is the feeblest and most dangerous instrument of economic adjustment in an individualist economy. There is no guarantee that under protection, as long as the instruments of economic adjustment remain under *individual management*, the increased price-margin will be handed over to labour; our experience of wage-trends in the Indian cotton, sugar and iron and steel industries has clearly testified that protection hardly creates a wage-structure calculated to cause adjustment in occupational differences. Even if wage-levels are raised in the protected industries, the questions remain: how long is the set of artificial adjustments going to be maintained? what guarantee have we against dumping from foreign interests? how are we to re-adjust the scale of wages when we decide to lower the tariff walls? how are we to provide for the deficiency of agricultural production during the time-lag between the disintegration of the existing processes and the reconstruction of the new processes in agriculture? how are we to regulate the volume of imports of food and raw materials during the period of readjustment? how are we to liquidate the increased volume of agricultural production under large-scale and efficient agriculture? how are we to adjust the composition of our foreign trade? what kind of imports are we to encourage in payment for our agricultural products from foreign countries?

Nor is the problem on the industrial side less complex. We must create a profitable conjuncture for diversification of industry if we decide to maintain the framework of individualist capitalism in tact. The arguments of all enthusiasts of industrial reconstruction in India are centred on one expedient—*protection*—as if it were the “open sesame” to economic solidarity and technical advancement. “Protect the home market and industrial solidarity is assured,” they declaim. In their enthusiasm they forget the interests of the three hundred and sixty million humble consumers of industrial products who have to bear the entire burden of this *uneconomic industrialisation*, and they also forget that they are denying to this vast population of rural consumers the fruits of technical progress and economic specialisation. They would rather give a handful of industrial syndicalists the advantage of an *artificially managed*

market than think of the stability of the rural consumer. If individual initiative were to remain the key-note of our future economic evolution, protection would only benefit a handful of Indian industrialists at the expense of the entire nation. It is pertinent to ask at this stage: **is this the way that we should go about reconstructing our economic life?**

It is evident that if we want to avoid economic revolution born of sheer hunger and dire poverty, we must rescue the Indian cost-structure from the vagaries of a competitive market. Protection, as a regulator of the mechanism of competitive adjustment, is a clumsy instrument creating economic muddle as long as the framework in which the adjustment has to be sought is essentially individualistic. A protective system of industrialisation has only given us so far a gross misdirection of the country's productive resources as in the cotton, sugar, paper and cement industries and has also given the country the "benefits" of syndicalist exploitation. And an unresponsive cost-structure in industries has definitely reduced foreign and home markets for industrial products as in the cotton industry. No scheme of "economic reconstruction" can succeed unless it includes stabilization of the existing industrial structure of the country through efficient planning involving not only the reconstruction of the industrial cost-structure but also a planned conservation of the home market.

Our task does not, and cannot, end here. On the rural side of our plan, we must improve the *productivity* of every acre of our land resources by varying our crops, by extending the area of irrigation, by an integrated plan of land reclamation, by improving the technique of agricultural production and finally, by restoring to the rural population confidence in the machinery of rural production by stabilising the rural market. On the industrial side of our plan, we shall have to reconstruct the cost-structure by liquidating "uneconomic" localisation of industrial units, by more efficient and up-to-date methods of production by stabilizing the *higher market*, not by protection, but by conservation and co-ordination of industrial production. Such a plan can give us economic stability and restore economic solidarity to our national life. Only such a plan can secure for us "an equitable balance

between production and purchasing power" and bring about a radical change "in the living conditions for the average citizen," reduce "his working hours", minimise "his drudgery" and ensure for him "sufficient leisure.... for culture and recreation."¹

"Individual initiative" can be anything but absolute in such a plan. If we attempted economic reconstruction on *individual initiative*, we would not be able to rescue our economic system from the fundamental instability of a competitive regime. Nor can we guard the economic system against a certain degree of misdirection of productive resources, under the illusive guidance of artificial profits. Individual initiative has been responsible for all our economic instabilities in the past: it has given us rural exploitation by an army of middlemen; it has given us our subdivided and fragmented holdings; it has given us our rural indebtedness; it has given us poverty and distress; in industries, it has given the country "uneconomic" localisation of industrial units; it has set up an uneconomic cost-structure born of structural and functional deficiencies in our industrial system and a gross misdirection of our productive resources with overproduction and dumping. In the economic system of the country, *individual initiative* has created urban unemployment and undernourishment. No one but a fool would fail to appreciate the "efficiency"—of individual initiative in a free competitive economy; but we must remember that competitive economy has lost its "freedom" in the course of its evolution. "The crisis", says Prof. Michelis, "cannot be overcome by being left to the free play of the economic forces of a system which has irreparably lost its powers of self-regulation...Now, between a system of free competition, which, moreover, is never completely carried into effect...and a system of vast and strict monopolies....the way seems to be that of a methodical reorganisation on a corporative basis."² Prof. Robbins may ask: "Is it certain that such a system would be more efficient than Capitalism?"³ Our task is to give India an economic system which, though less efficient than that of the capitalist type, is at least more stable.

¹Sir M. Visvesvaraya, *Planned Economy for India*, p.3.

²Prof. Michelis, *World Reorganisation on Corporative Lines*, pp.233-235.

³The Great Depression, p.156.

Such a "plan" of reconstruction would imply not only the remodelling of the existing transport system but also a co-ordinated control of the entire machinery of economic adjustment. The main aim of such a plan should be to bring all branches of economic activity into a co-ordinated system of economic adjustments with a view to eliminate overproduction and reckless competition, which have cast a gloom over our economic evolution in the past. The plan envisaged implies "regionalisation" of economic control. It attempts to avoid the basic instabilities of a regime of individualist production and competitive exchange and to rectify the errors of adjustment of an unco-ordinated circle of exchange and unregulated processes of production. It is evident, however, that in our search for stability in the regional economic structure, we shall have to sacrifice not only a large portion of "economic liberty" which is the basic merit of a free economic system, but also a portion of *technical efficiency* which is born of intensive specialisation of productive processes. We shall see if we can counter-balance this loss by a greater degree of "stability" in the new economic system.

We shall now take up consideration of the principles of reconstruction in the five major departments of economic activity: transport, agriculture, industry, banking and marketing organisation in greater detail.

Two general considerations must first be noted. Such a scheme would imply the setting up in India of regional economic zones, which must be rendered self-sufficient as far as possible. This splitting up of the country into economic zones must first recognise the two fundamental factors of the cultural and the social personality of each region concerned. We have seen earlier how interregional transfer of population to equate density of population with regional production of subsistence is impossible as long as the framework of economic adjustment remains fundamentally competitive. We have also seen how a high wage-level would only freeze the industrial cost-structure and render it incompetent in a competitive circle of exchange. In fact the thesis of interregional transfer of population to standardise density of population propounded by Sir M. Visvesvaraya is a thesis which puts the cart before the horse; it is essential that we realised that the problem of

density-adjustment in India is not the problem of equating the volume of population with the volume of regional production of subsistence but that of adjusting the volume of subsistence to the density of population. It is also true that such an adjustment cannot be achieved in a competitive system since **price operates as the most efficient factor of disturbance and wipes out every artificial adjustment that we may ever attempt to set up.** Nor can inter-regional transfer of population on an effective scale be attempted in India—an old country with a relatively *settled density*. The scheme must therefore attempt to bring up regional production of subsistence into conformity with regional density of population, not only by conservation of the land resources of the region but also by unlocking the dormant land resources of each region through an intensive scheme of land reclamation and by rendering each rural and urban unit a co-ordinated part of the *economic zone* we are contemplating.

Secondly such a scheme would also imply a co-ordination of all the economic zones in a national scheme of barter. Such reconstruction would imply, in the first place, regionalisation of the entire mechanism of economic adjustment. Our survey has shown that the major factors standing in the way of adjustment in the rural zones are an internationalised market and a competitive scheme of production, which have definitely undermined the economic position of the Indian rural producer. No scheme of reconstruction which does not set up an economic framework in which the rural moneylender will have ceased to exist and does not attempt to liquidate rural indebtedness by removing the prime cause of rural encumbrance—adjusting a non-competitive type of production with conditions in a competitive market in primary products—can ever give the country even the shadow of economic stability. The sooner we attempt to recognise this situation and exert to rescue our economic system from the instabilities of an exchange system, the simpler will be the rural problems we shall have to liquidate. We cannot control the competitive system of economic adjustments by a mere manipulation of the tariff, nor can we get over the instabilities of a regime of internationalised prices by *artificially managing* the rural cost-structure through the

supply of cheap credit or through the improvement of the technique of rural production. As long as we have to equate our productive processes with a competitive system of prices, our general economic condition will grow progressively precarious. We have observed in the foregoing pages how we cannot set up a "competitive" cost-structure either in agriculture or in industry without plunging the whole country into economic anarchy and leaving it at the end of the reconstruction process still at the mercy of the economic instabilities inherent in any system of individualist production and competitive exchange. Nor is it wise to allow the country's productive resources to be squandered by a gang of financial or industrial syndicates in speculative profiteering under a regime of selective protection. Nor can we dream of setting up a healthy and vigorous industrial system under a money-market dominated by financial institutions whose primary concern is their own liquidity, profit and stability rather than the solidarity of the industrial system or the welfare of the community at large. Volumes have been written of the part played by a highly individualist money-market in deepening economic depressions and inflating booms through their policy of investment and loan and we need not cover the ground in any great detail here. "The fundamental defect of the monetary and credit structure of to-day", writes Prof. Michelis, "lies precisely in being separated from the economic matrix which out to feed it and regulate its working, and in living an independent life ... It has been justly remarked that the present monetary and credit system in time of prosperity puts a premium on speculation, on the inflation of credit and on the inflation of industries and that, in times of crisis, it becomes weakened or disordered by fear, by the flight of capital towards where it can be safely kept, by stagnation and by refusal to serve."¹ This clearly shows the urgency of submitting the money-market to a regionalised control and co-ordinating it with the processes of the general economic evolution of the country by an organisation more powerful, more dominating and more dynamic than the Reserve Bank of India.

Under such a plan of reconstruction, the role of trans-

¹World Reorganisation on Corporative Lines, pp.147-48.

port can only be *regional*. The system of transport will have to be organised in each economic zone for the double purpose of moving raw materials and food products towards the urban centres and of transporting articles of rural consumption to the rural zones. The present system of transport has been evolved without any regard towards co-ordination of the railways and roads in a complementary system. The result has been the development of severe competition between the two "systems" in recent years, with serious consequences to the stability and efficiency not only of railways but also of motor transport. It must at once be recognised that the present railway system cannot be enlarged so as to cover the entire country without serious dislocation to the central and provincial administration of resources. Any further improvement in the transport system of the country can only be achieved by the co-ordinated expansion of road transport to overcome the deficiencies of the railway system and to provide cheap and efficient transport in each of the new economic zones. The basic factor governing the evolution of road transport in the new system will be, not competition with the railway system, but co-operation and co-ordination with the economic system of the country. This implies the regionalisation of the transport system under a unified control, as in the famous American example of Federal Transport, whose function will be to regulate and control traffic. Such regionalisation of transport can only arrive as part of a general scheme of economic co-ordination.

Reorganisation of agriculture in a regional system would present certain definite problems: it would, in the first place, imply regimentation of individual farmers into a co-ordinated system of rural production. Secondly, it would mean the recasting of the entire machinery of rural production to suit the exigencies of a non-competitive system of economic adjustments. In the third place, it would mean the substitution of competitive efficiency in productive processes by regional sufficiency.

The first problem that presents itself to us in any attempt at co-ordinating our resources in a zonal plan of economic conservation is the problem of regimenting the individual farmers into a co-ordinated system of economic adminis-

tration. In this regard there is no need to be alarmed at the failure of similar experiments at consolidation of agrarian holdings under the co-operative movement—these experiments left unsolved the fundamental problem of the rural market and naturally failed to evoke any enthusiasm in the Indian cultivator, except in the Punjab, where land fertility is relatively more standardised than in the other parts of the country. Our plan of conservation must aim at two things: the economic efficiency of the zone concerned and the increased productivity of every acre of our land resources so far as the rural regions are concerned. The low productivity of our machinery of rural production, as we have seen earlier in the book, clearly reveals colossal waste in the utilisation of the land resources of the country. If we could only secure our land resources in a well planned scheme of land reclamation and conservation of rural production, we could increase our rice production four times and our wheat production by at least three times and grow all the rice we are growing to-day in nearly 80 million acres in less than about 20 million acres and all the wheat we are to-day growing in 25 million acres in about 8 million acres and release the rest of the land resources for other uses and crops. Thus out of the existing land resources alone, we could release 120 to 130 million acres from food crops under a scheme of economic conservation. No farmer with his own interest at heart can object to co-operate with a plan which assures him not only relief from rural indebtedness and from a competitive circle of exchange, but also promises him economic stability by unfolding before him a new panorama of economic stability in a regional system of economic co-ordination. This of course means the setting up of *regional corporations* with collectivised land ownership.

The principal objects of such rural "corporations" must be not only the attainment of "maximum" fertility for "every sod of earth" cultivated but also the preservation, in full, of the country's "right to its essential characteristics of peasantry." It should not aim at complete disintegration of rural economy but at its consolidation in a corporate plan. It should be our aim not only to urbanise our agriculture but also to ruralise our industrial structure;

we must bear in mind a famous statesman's advice to his country: "Agriculture should be honoured, studied, assisted."

The second part of the plan would imply the reclamation of land in India now classified under "cultivable waste other than fallow" and certain portions of "forests". Thus in Madras there was only 33.87 per cent of total land resources under actual cultivation; in Bombay, 33.25 per cent; in Bengal 24.00 per cent; in U.P., 36.01 per cent; in the Punjab 28.68 per cent; in Bihar and Orissa, 24.18 per cent; in Central Provinces and Berar 24.99 per cent; in Assam, 5.88; in N.W. Frontier Province, 2.29 per cent. Of course the area that can be effectively reclaimed for agrarian exploitation may not be so large as these figures indicate; but there can be little doubt that millions of acres can still be brought under cultivation in an intensive programme of nation-wide land reclamation.

We have seen how nearly a century ago Sir Arthur Cotton had pleaded for the extension of irrigation in vain. Economic "quietism" of the Government and their greater desire for the administrative co-ordination of the country forced an anomalous railway system on the land which could neither stabilise the economic system nor increase the productivity of the rural and urban resources of India. It is time that we woke up to the urgency of conserving the productive resources of the country in a comprehensive programme of economic co-ordination.

A co-ordinated zonal economic system further implies the recasting of the crop schedule designed to secure regional self-sufficiency. At present rice is the principal crop in almost all parts of India except in Ajmer-Merwara, Delhi, the North West Frontier Province and the Punjab where wheat occupies a predominant position in the rural production programme, while Bombay has kept a fair balance between rice and wheat crops by devoting 3.17 million acres to rice and 2.8 million acres to wheat according to the data available for the year 1934-35. The problem of crop-distribution over our land resources becomes at once insistent under a co-ordinated plan of land conservation. As it is, the volume of "cultivable waste other than fallow" is itself immense and under intensive cultivation which will increase the productivity of every unit

of cultivation much of the area, at present devoted to cultivation, itself will be released for further administration. The extent of the problem that ultimately confronts any attempt at conservation of land resources becomes apparent when we recognise that in addition to the volume of land which will be made available for further agricultural production by intensive cultivation, we shall have, as of to-day, 19.1 million acres of cultivable waste other than fallow in Assam alone. Similarly we shall be having 6.98 million acres in Bihar and Orissa, 6.62 million acres in Bengal, 6.65 million acres in Bombay, 14.21 million Provinces. The detailed plan of co-ordinating our land resources is the work of expert technicians, who have to undertake it only after a detailed and careful survey of regional land resources, and we can only attempt here the broad principles that must govern the scheme.

Finally on the rural side, the scheme must set up a machinery to regulate the rural market—both in articles of rural production and of rural consumption. Here attempts must be made to sterilise international instabilities in the rural market and this can only be achieved by the setting up of Rural Corporations to undertake the responsibility of liquidating rural production and managing the rural circle of exchange, under a co-ordinated barter system. Such a system cannot emerge without a sufficient decentralisation of our industrial structure and of economic control which would regulate not only local production but also inter-regional transfer of goods. The aim of the proposed scheme of economic reconstruction is not the promotion of *technical* efficiency at the cost of *economic* stability. In all our plans of reconstruction we must remember that the area of distress we have to liquidate is not only vast but also complicated by the rigidities of a regime of unco-ordinated technical evolution. We must reconstruct our economic system in such a way that we do not destroy the framework of social and cultural relations in the vast rural zones. Rural reconstruction which forgets the complexity of the problems which it has to solve will only end by creating a worse economic and cultural muddle than that which it pretended to solve: the history of the Co-operative Movement in India has amply testified to the inefficiency of economic adjustment born of a lack of pro-

per appreciation of the fundamental problems of regional economic administration. Will the proposed rural Corporations solve these problems of adjustment? Their success depends upon the spirit and comprehensiveness with which they are allowed to function.

The function of the rural corporations is immense. They must inspire confidence in the cultivator that the incorporation of his farm in a corporate plan is only for stabilising his position and not for the benefit of exogenous interests; they must allow him to work on his and neighbouring holdings with improved agricultural implements; they must win his confidence by subsidising his income through proper regional diversification of *essential industries*; they must assume control of the rural markets and eliminate all outside influences which might in any way disturb the delicate balance of economic adjustments reached in a *closed* regional economic system; in short, they must have unchallenged control of the entire regional mechanism of economic adjustments. These are, it must be admitted, immense responsibilities, but the problem of general economic distress in India is also immense. The sceptic will probably be in doubt whether an adequate conjuncture for the evolution of such a plan of economic conservation can ever be set up in the country. We can only reply that the alternative to such a plan is nothing short of national attrition culminating in economic disaster. We should either plan our rural civilisation on corporate lines or perish. There is, of course, in any kind of planning, certain regimentation of economic freedom. But under a free system of economic adjustments, there is a greater danger of economic servitude for the small farmer. Many Indian farmers have already become, under the *free economic system* of to-day, nothing more than abject slaves of the village money-lenders or *mihajans*. "Such evidence as was given," wrote the Royal Commission, "suggested that money-lenders were steadily adding to their landed possessions in most provinces, and we consider that the time has come when enquiry should once more be conducted into the extent to which the hereditary cultivating class is being expropriated by those who do not themselves cultivate the land." It would, of course,

¹Report, pp.421-22.

be the first task* of the rural corporations to liquidate rural indebtedness by compensatory awards before they can set up corporate farming. There is no doubt that the cultivator would give his support to such an endeavour provided he is assured of his *proper share*.

In India corporate farming will further stabilise the economic position of the cultivating population since the majority of the rural population are also owners of agricultural holdings—however small they may be.

The problem remains of "regionalising" our industrial structure. Our survey in the foregoing pages has shown us that the problems confronting Indian industries can be reduced to two fundamental problems of adjustment: the problem of adjusting a rigid cost-structure to a competitive market and the problem of adjusting our productive resources to the home market. *Individualist capitalism* has given India not only misdirection of productive resources but also a rigid cost-structure which has been misrepresented as fundamentally a wage-problem. Consequently the wage-level is such that it is impotent to maintain a stable labour-market in the country. Can we dissolve this situation?

The first defect of our industrial evolution has been that it has closely followed the evolution of a non-economic transport system, which has only precipitated in the industrial structure of the country all the rigidities of *an uneconomic localisation*,* with the result that not even "discriminating protection" has been able to *balance* the industrial structure in the home market. In recent years the difficulties of the older units of the industrial structure of the country have been complicated by the emergence of more "efficient" units not only from the point of view of localisation but also from the standpoint of technical efficiency and by a growing tendency of the secondary markets towards greater "regionalisation". Clearly then, in any attempt at reconstructing our industrial structure, we must attempt to release the units from the rigidities of uneconomic localisation and of a cost-structure "frozen" under an unco-ordinated economic evolution and also from the limitations imposed on the structure of industrial units by the severely restrictive tendencies of the secondary markets. Such a reconstruction can only be

achieved, firstly, by reducing the size of the industrial units; secondly, by regionalising them in a closed economic system and finally by a severe regulation of the labour market by a *conscious management* of the wage-structure in a plan of economic co-ordination. Attempts should also be made to rescue the industrial structure from the non-economic encumbrances of industrial urbanisation.

It is time that we realised that we cannot reconstruct our industrial structure on stable foundations except through, what corporative reconstructionists call, "*Circumscription*" of the industrial system. This "circumscription" must be attempted in the general interests of the community. All opposition to circumscription from vested interests must be severely subdued. All the evils of "unregulated" production are present in each of the industries of the country conducted on individualist lines. There is not only overproduction but also dumping and syndicalist exploitation of the country involving colossal waste of productive resources.

Why is it that no regulation has yet been attempted in the industries which have suffered most in this kind of economic evolution like the cotton, sugar and paper industries?

The reason is more "academic" than "economic". As Prof. Michelis puts it: "One of these anomalies is... the contrast presented by the means of communication and of transport as a whole, the means of exchange and the means of production. Communications are dominated by the general interests of the consumers and are therefore in the hands of public authorities; they are susceptible to prodigious mechanical improvements and amenable to rapid international co-ordination. Means of exchange are under the mixed control of the State and private enterprise, and are therefore subject to manifold regulations and safeguards. Chances are scanty for the technical improvement of the methods in use, but except in certain branches, there are great possibilities of effective co-ordination among the different countries... The means of production are connected with the system of private property and individualistic principle of reward, to the exclusion of the corrective social factor represented by the general mass of consumers... They reveal an increas-

ing capacity for technical improvements, which impedes the combination of productive agents, and tends to fling ever larger masses of workers on to the scrap-heap."¹ Not only does individualist production "fling" workers periodically on the "scrap-heap", it also misuses the other agents of production as well. The main concern of all individualist production is, as Prof. Robbins puts it, "the preservation of the value of all capital already invested in particular industries." If it is true, as Prof. Robbins contends, that "economic progress, in the sense of a cheapening of commodities, is not compatible with the preservation of the value of all capital already invested in particular industries,"² much less is it true that economic solidarity can be achieved by the same process. There must be severe regulation of the mechanism of economic adjustment in a co-ordinated plan of economic administration if we are to secure the general interest of the consumers. The extent of the misdirection of the productive resources of the country in our industrial system is, indeed, enormous as our survey has amply revealed.

Thus India is the victim of "degenerate forms of industrial feudalism."³ Every attempt must be made to rescue the economic system from exploitation from these feudalistic syndicates. This implies a four-fold reform: in the first place, it implies the recognition of the fact that "the ability to co-ordinate the factors of production outside an economic unit can only reside in the State." in the second place, it implies that the powers of impeding and regulating the productive effort resides in none of the factors of production but in the State; this means that the right of labour to strike and of capital to lock-out is rendered null and void in the new economic regime; in the third place, it implies the regulation of profit under social utility and finally, it implies that "the individuals and classes who form the productive elements of the population must all be placed in the same footing in respect of

¹World Reorganisation on Corporative Lines, p.25.

²The Great Depression, p.142.

³Prof. Michelis.

⁴Prof. Michelis, World Reorganisation on Corporative Lines, p.27.

their power and their rights in relation to economic administration."¹

All this implies State regulation of the industrial structure with the general interests of the community as the governing factor and the limitation of profit as an incentive to investment; in other words, it means the conversion of all instruments of production and exchange into public utilities, under a zonal economic system. Under such a system all the industrial units will have to be severely "regionalised" since conditions in our country do not permit of excessive centralisation of economic power in the State and since under a centralised plan, close supervision becomes a problem. We must therefore attempt to regionalise the sphere of economic control. But regulation of the industrial structure is not possible without reducing the size of the industrial units and securing for them "localisation" near the raw material areas and co-ordinating them in a spiral system of economic corporations, under a co-ordinated scheme of barter adjustments. Thus in the case of inter-regional barter adjustment of trade, the region exporting or importing would adjust the trade balance by transfer of "special" goods and services to the region exporting to it. In this scheme, new regions would be developed under industrialisation and the problem of rural underemployment would be solved in a drive for industrial decentralisation. The task of regulating the volume of zonal production and co-ordinating it with the zonal market is to be left entirely in the hands of the zonal Economic Council to be established in each Economic Zone of the country.

Two criticisms may be levelled against such a scheme: that such a scheme would set up, in Prof. Robbins' language, Regional or Zonal "syndicalism" and that within the system itself "there would be authoritarian disposal of the factors of production" and a consequent "chaos of bilateral bargains between" zonal "monopolies".² These criticisms need careful consideration.

In a regime of regulated profit and barter adjustment;

¹Prof. Michelis, *opt. cit.* pp.29.

²For a brilliant discussion of this aspect of the problem the reader is referred to Prof. Robbins' *The Great Depression*, pp.158-59

the dangers of syndicalist exploitation are greatly minimised. The object of zonal economic administration, under the plan suggested, is not the acquisition of profit but the attainment of regional economic stability. In such a background, the objection that in attempting to escape from the industrial syndicalism of a protected economy we are only rushing into the chaos of zonal "syndicalism" of the corporate economy loses much of its force. What we are aiming at in the present plan is not so much the *technical efficiency* of the free enterprise type, which means keeping the instruments of production in constant adjustment with technological and social dynamics but economic solidarity and stability by securing a relatively stationary adjustment between zonal production and consumption and keeping all the factors of the new economic complex in a relative state of balance. This of course would mean the sacrifice of technical efficiency of the machinery of production as such a plan would involve an "authoritarian disposal of the factors of production,"¹ or in other words, circumscription of not only labour but also capital and raw materials. Thus each zone will be required to have its own essential industries like textile industry, engineering industry, sugar industry and such other industries which may be deemed *essential* for the maintenance of the economic solidarity of the zone concerned and certain "*special*" industries like paper, rubber and metal industries in which there happens to be greater regional specialisation because of the special conditions prevailing in the zone concerned, the inter-zonal trade in these *special* commodities being adjusted by a barter system of equations.

There are, no doubt, certain misgivings about the working of such a system of economic adjustments which must be carefully examined. Such a system, says Prof. Robbins, "will seek to distribute the factors of production between different lines of industry in such a way that it will be impossible to withdraw them from any one line and put them to any other without the products sacrificed being of greater value than the products gained. And if wants change, or if the means of satisfying them alter,

¹Prof. Robbins.

it will seek to rearrange production so as to once more to attain this end...But how is this to be done? What mechanism is available for ascertaining the complex and changing tastes of the millions of different individuals constituting the community? And what means are present for deciding the relative efficiency of the different factors of production for satisfying these ends? How will the organisers of the planned economy choose between the production of boots and the production of potatoes? And having chosen how will they decide the most expeditious methods of production?"¹ These difficulties can be met in two ways: by standardisation of consumption and by "regionalisation" of the plan, i.e., circumscribing the area of economic administration. The first will give us a division of industrial production into "essential" and "special" while the second will, by reducing the area in which planning will effectively operate, enable the co-ordinating authority to ascertain and circumvent "zonal" or "regional" consumption and adjust production to its needs. In fact there is no need to set up any special "mechanism for ascertaining the complex and changing tastes of millions of different individuals constituting the community" since the dynamics of consumption under a planned or co-ordinated economy will not be so "complex" as under an "individualist economy" where new wants are created and new fashions initiated in the process of profitable investment. In a planned economy, we would not be requiring the employment of our productive resources in the fabrication of fancy hairpins, lipsticks, perfumery, chocolates, cigarettes, electric "de luxe" articles and so many other articles of "special" consumption *to the same extent as in a highly individualist economy*. We have seen how in an earlier epoch, Indian corporate economy of the rural regions kept the relationship between "essential" industries like cotton-weaving, manufacture of rural implements and household articles properly balanced with special "urban industries" like embroidery, artistic shawl-weaving, damascening and muslin industries. No economist can dare assert that the old economic system was less stable or less adequate than the present centralised system of unco-

¹The Great Depression, pp.148-49.

ordinated economic exploitation. It is needless to ask of the old system of corporate economic adjustments: "What mechanism is available for ascertaining the complex and changing tastes of millions of individuals constituting the community"? The "community" whose tastes had to be ascertained did not constitute of "millions" of individuals because the area of economic administration was narrowly circumscribed; nor were their tastes complex or changing with the rapidity of those of modern individualist communities; they had been relatively "standardised" and for the more fashionable and artistic sections of the community there were adequate "special" industries to cater. That is how we had solved our problems of administering communal preferences. There is no earthly reason why we should not be able to *circumscribe consumption* now by decentralising economic administration.

The ultimate question remains: what would be the contribution of India under such a scheme to an Imperial system?

Here we must bear in mind that the old policy of colonial exploitation is to-day obsolete; we are on the threshold of a new era of imperial co-operation and conservation; it would not be difficult to conceive of a system of economic conservation under which India would be a valuable asset to a new imperial system consisting of corporate economic zones between which trade is to be settled by a mechanism of barter adjustments. It would no doubt set up an Empire of Planned Economic Zones which is open to the major criticism "A world of planned economies would present a totally different picture. It would be a world of geographical syndicalism."¹ But the dangers of syndicalist exploitation are greatly neutralised in a system of barter adjustments. At any rate in the absence of "individualist investment", disturbances which zonal syndicalist exploitation may cause in inter-zonal economic relationship can easily be controlled; but a programme of imperial economic conservation implies greater intra-imperial co-operation which the Ottawa Conference has shown does not exist within the ambit of the British Empire to-day. But will the attitude be different and will the imperial units show a co-operative tendency in a corporate system

¹Prof. Robbins, *The Great Depression*, p.158.

of economic relationships? For one thing* the zonal system of economic conservation will have done away with "vested interests" of invested capital which have been till to-day presenting the most powerful obstacle in the path of imperial co-operation; and a barter system of inter-zonal trade adjustments will have further dissolved the rigidities of economic nationalism and paved the way for the economic conservation of the Empire; the new system of imperial conservation does not pretend to disturb the zonal structure of economic adjustments as the old system of price adjustments did, and as long as foreign trade under the barter system remains comparatively insulated in its relation to the general economic system of the Imperial units than under an exchange system, there should be little room for objection from the imperial units to incorporate themselves in a system of imperial conservation.

A final criticism confronts us. Prof. Robbins asks: "A world of national planning is not a world which offers high hopes of political stability or economic progress."¹ As long as *economic progress* implies competitive production, individualist control of the mechanism of economic adjustment and national scramble for international markets, there can be neither "political stability" nor social tranquillity in the world. Nor can such "economic progress" set up an economic system which would guarantee social solidarity for any part of the earth. Few would disagree with Prof. Michelis that "The economic system must be a human structure in every sense, and as far as possible a deliberate construction, to ensure that the oscillations round the pole of equilibrium shall have the smallest possible radius and shall only be the effect of those natural agents which cannot be subdued."² Nor can such a system be erected in an economic regime which pursues *technical efficiency* at the cost of *economic stability*.

Let us invoke Philip Wicksteed to pronounce the last word on the subject: "The purposes of man are often not only diverse, but mutually destructive, and this both on the large and the small scale. The wars by which one set of men devote their energies and resources to extin-

¹The Great Depression, p.159.

²World Reorganisation on Corporative Lines, p.24.

guishing the energies and resources of another set of men, and the perpetual diversion, in times of peace, of national energies and resources towards the preparation for such acts of destruction, are the types of a yet more intimate and incessant conflict by which men devote their energies not towards increasing the collective resources, but towards competing with each other for the command of them. When we add the perpetual errors of judgment which lead men to turn their resources into relatively futile channels because they know no better, and the further industrial wreckage which is perpetually and deliberately planned by those who shew false lights in hope to pick up some fragments of the wreck upon the shore, the imagination begins to form some conception of the moral and social chaos which may be concealed beneath the apparent cosmos of that economic system, which outwardly displays the fascinating picture of a huge federation, as wide as the world, organised automatically upon a scheme which perpetually determines the flow of all resources, personal and material, to the point of the social organism where 'the demand for them is most urgent and their significance, highest'.

"...But now that we know better, and perceive that the economic forces never have been, and never can be, and never should be, left to themselves, and are seeking deliberately to subdue individual action into harmony with collective purposes, the more clearly we can detect the evils which accompany the strength of spontaneous organisation, the more effectively we may hope to check them...The play of individual desires produces many results that outrage the general conscience...we may hope, as we come better to understand the economic forces, indefinitely to increase our control of them, till we can make the ever-present vigilance of the individual's desire to accomplish his own purpose subject to the control of public aims, and so harness individualism to the car of collectivism, avail ourselves of its prodigious economies and yet say to it, when it would rage destructively, 'hitherto shalt thou go and no further'."¹

¹The Commonsense of Political Economy, pp.396-98.